

**THE
SKEPTIC
ZONE
PODCAST**

www.skepticzone.tv

1
00:00:09,090 --> 00:00:05,929

[Music]

2
00:00:11,830 --> 00:00:09,100

welcome to the skeptic zone the podcast

3
00:00:13,910 --> 00:00:11,840

from Australia for science and reason

4
00:00:16,840 --> 00:00:13,920

[Music]

5
00:00:23,050 --> 00:00:16,850

[Applause]

6
00:00:25,850 --> 00:00:23,060

[Music]

7
00:00:30,790 --> 00:00:25,860

hello and welcome to the skeptic Zone

8
00:00:34,490 --> 00:00:30,800

episode number 457 for the 23rd of July

9
00:00:36,380 --> 00:00:34,500

2017 Richardson is here with you from

10
00:00:38,330 --> 00:00:36,390

Sydney Australia at two o'clock in the

11
00:00:42,200 --> 00:00:38,340

morning Sydney Australia yes for some

12
00:00:45,979 --> 00:00:42,210

reason possibly to do with two sceptic

13
00:00:48,320 --> 00:00:45,989

zone cuts making noise I'm awake or is

14

00:00:50,479 --> 00:00:48,330

it a bit of late jet lag who knows what

15

00:00:52,130 --> 00:00:50,489

that means for you well not much except

16

00:00:55,130 --> 00:00:52,140

the sceptic zone comes out a few hours

17

00:00:56,540 --> 00:00:55,140

early this week and of course being two

18

00:01:01,340 --> 00:00:56,550

o'clock in the morning there are no

19

00:01:04,040 --> 00:01:01,350

dreaded planes flying overhead to make

20

00:01:06,080 --> 00:01:04,050

me stop and start recording we're gonna

21

00:01:08,480 --> 00:01:06,090

kick off with another interview I did at

22

00:01:11,990 --> 00:01:08,490

the North East Conference of science and

23

00:01:14,960 --> 00:01:12,000

skepticism and that was just recently in

24

00:01:17,330 --> 00:01:14,970

New York this week I chat to Claire

25

00:01:22,430 --> 00:01:17,340

Klingenberg about the upcoming European

26
00:01:25,070 --> 00:01:22,440
skeptics Congress in Poland on the 22nd

27
00:01:27,920 --> 00:01:25,080
to the 24th of September and the big

28
00:01:30,260 --> 00:01:27,930
news and the late-breaking big news is

29
00:01:32,030 --> 00:01:30,270
that our very own reporter and the

30
00:01:35,360 --> 00:01:32,040
president of Australian skeptics Iran

31
00:01:37,789 --> 00:01:35,370
Sahib will be a guest speaker at the

32
00:01:40,880 --> 00:01:37,799
Congress more about the Congress coming

33
00:01:43,280 --> 00:01:40,890
up with Claire Klingenberg after that

34
00:01:46,430 --> 00:01:43,290
it's brouhaha science this week with Ben

35
00:01:49,600 --> 00:01:46,440
Lewis telling us about the the benefits

36
00:01:52,280 --> 00:01:49,610
of an Australian Space Agency

37
00:01:55,399 --> 00:01:52,290
Australians in space boggles the mind

38
00:01:58,399 --> 00:01:55,409

then it's the raw skeptic Heidi Robinson

39

00:01:59,840 --> 00:01:58,409

with a very interesting live report from

40

00:02:04,010 --> 00:01:59,850

star stuff

41

00:02:05,450 --> 00:02:04,020

the recent astronomy meeting at byron

42

00:02:08,240 --> 00:02:05,460

bay up on the north coast of New South

43

00:02:10,999 --> 00:02:08,250

Wales Heidi gives us an excellent

44

00:02:15,350 --> 00:02:11,009

rundown of the the couple of days of the

45

00:02:18,370 --> 00:02:15,360

meeting and also a walk on Mars

46

00:02:21,289 --> 00:02:18,380

yes Heidi goes for a walk on a virtual

47

00:02:24,650 --> 00:02:21,299

Martian landscape that's coming up in

48

00:02:26,420 --> 00:02:24,660

the raw skeptic report then we have part

49

00:02:29,690 --> 00:02:26,430

one of a series of interviews with Anne

50

00:02:32,750 --> 00:02:29,700

Reed the director of the National Center

51
00:02:33,840 --> 00:02:32,760
for Science education and that's based

52
00:02:36,570 --> 00:02:33,850
in Oakland Calif or

53
00:02:39,000 --> 00:02:36,580
I paid a visit to the center for science

54
00:02:41,700 --> 00:02:39,010
education a couple of weeks ago to chat

55
00:02:44,070 --> 00:02:41,710
to Anne and she's going to fill us in on

56
00:02:47,370 --> 00:02:44,080
some of the the ups and downs

57
00:02:50,600 --> 00:02:47,380
mostly ups I think about promoting

58
00:02:53,040 --> 00:02:50,610
science education in the United States

59
00:02:55,710 --> 00:02:53,050
and in the coming weeks we'll have some

60
00:02:58,290 --> 00:02:55,720
more interviews and updates from Anne

61
00:03:01,050 --> 00:02:58,300
Reed then to round off the show a little

62
00:03:03,450 --> 00:03:01,060
book review I've been enjoying reading a

63
00:03:06,720 --> 00:03:03,460

book recommended to me or recommended to

64

00:03:07,800 --> 00:03:06,730

everybody by dr. Harriet hall at the the

65

00:03:10,310 --> 00:03:07,810

Nexus conference

66

00:03:13,670 --> 00:03:10,320

it's called nibbling nibbling on

67

00:03:16,970 --> 00:03:13,680

Einstein's brain by Diane Swanson and

68

00:03:20,550 --> 00:03:16,980

I'm really enjoying it it's a book

69

00:03:24,750 --> 00:03:20,560

designed for the younger reader but I

70

00:03:27,780 --> 00:03:24,760

dare say it's applicable for all ages

71

00:03:29,850 --> 00:03:27,790

what do they used to say from 9 to 99 or

72

00:03:32,220 --> 00:03:29,860

something silly like that it's really

73

00:03:35,070 --> 00:03:32,230

good I'm really enjoying it bringing

74

00:03:37,110 --> 00:03:35,080

science the method of science what to

75

00:03:39,660 --> 00:03:37,120

look out for bad science good science

76

00:03:42,210 --> 00:03:39,670

all that sort of thing in a very easy to

77

00:03:45,090 --> 00:03:42,220

understand fashion nibbling on iron

78

00:03:47,850 --> 00:03:45,100

Stein's brain and that review comes up

79

00:03:49,500 --> 00:03:47,860

to round off this week's episode now

80

00:03:52,050 --> 00:03:49,510

before we get stuck into the show some

81

00:03:56,220 --> 00:03:52,060

more late-breaking news I'd guess you'd

82

00:03:59,730 --> 00:03:56,230

say I am very happy to say that I will

83

00:04:01,940 --> 00:03:59,740

be speaking at the upcoming psych on the

84

00:04:06,270 --> 00:04:01,950

the conference in Las Vegas

85

00:04:10,350 --> 00:04:06,280

CSI conference org and that's in late

86

00:04:13,770 --> 00:04:10,360

October and EE especially extra-good our

87

00:04:16,140 --> 00:04:13,780

very own dr. Rachel Rachel Dunlop from

88

00:04:19,860 --> 00:04:16,150

dr. Ricci reports will also be speaking

89

00:04:22,350 --> 00:04:19,870

at this at this conference but I'm sure

90

00:04:24,660 --> 00:04:22,360

we'll bring you more news about that in

91

00:04:27,540 --> 00:04:24,670

the coming months before the conference

92

00:04:32,580 --> 00:04:27,550

begins but now it's time for me to open

93

00:04:35,010 --> 00:04:32,590

the door quietly sneak past the sleeping

94

00:04:36,990 --> 00:04:35,020

cats yeah it doesn't work they're

95

00:04:40,860 --> 00:04:37,000

waiting outside the door mm-hmm

96

00:04:44,430 --> 00:04:40,870

go downstairs go into the laundry open

97

00:04:45,810 --> 00:04:44,440

the cat food box and give those cats

98

00:04:47,520 --> 00:04:45,820

some

99

00:04:49,830 --> 00:04:47,530

or do they have to this morning was it

100

00:04:52,290 --> 00:04:49,840

the fish fish flavoured or chicken or

101
00:04:54,990 --> 00:04:52,300
something like that hmm lucky cats while

102
00:04:56,510 --> 00:04:55,000
I'm doing that I hope you enjoy the

103
00:05:20,409 --> 00:04:56,520
skeptic zone

104
00:05:25,060 --> 00:05:20,419
[Music]

105
00:05:27,560 --> 00:05:25,070
Klingenberg hello honey in person yes

106
00:05:29,659 --> 00:05:27,570
amazing it's amazing the people you you

107
00:05:31,400 --> 00:05:29,669
bump into it a skeptics convention yeah

108
00:05:32,990 --> 00:05:31,410
it's always a fascinating we can meet

109
00:05:34,850 --> 00:05:33,000
someone in person who became known

110
00:05:38,540 --> 00:05:34,860
virtually for some time

111
00:05:39,680 --> 00:05:38,550
so you're here at in New York for this

112
00:05:41,600 --> 00:05:39,690
this conference

113
00:05:43,939 --> 00:05:41,610

any particular reason no you just love

114

00:05:46,790 --> 00:05:43,949

to be here I want to try out all the

115

00:05:50,810 --> 00:05:46,800

skeptic conferences so I've been to the

116

00:05:53,689 --> 00:05:50,820

QED and saikhan and Tudor rationalist

117

00:05:55,640 --> 00:05:53,699

International and now at Texas so I'm

118

00:05:56,090 --> 00:05:55,650

gonna try everything and see the

119

00:05:58,600 --> 00:05:56,100

difference

120

00:06:01,100 --> 00:05:58,610

even though we all all the conference's

121

00:06:02,000 --> 00:06:01,110

focus on skepticism and science all of

122

00:06:06,830 --> 00:06:02,010

them have a very different atmosphere

123

00:06:08,480 --> 00:06:06,840

and either knowingly or not knowing and

124

00:06:10,760 --> 00:06:08,490

kind of have a different focus in

125

00:06:13,540 --> 00:06:10,770

general so that's not a bad idea at all

126

00:06:16,250 --> 00:06:13,550

you have to come to Australia yeah

127

00:06:17,960 --> 00:06:16,260

absolutely so how are things shaping up

128

00:06:20,719 --> 00:06:17,970

and remind our listeners once again what

129

00:06:23,270 --> 00:06:20,729

is coming up so the European skeptics

130

00:06:26,719 --> 00:06:23,280

Congress is going to be on September

131

00:06:28,310 --> 00:06:26,729

22nd to 24th and if they're things are

132

00:06:31,550 --> 00:06:28,320

shaping up great I mean it's only three

133

00:06:36,379 --> 00:06:31,560

months ago three months away so get your

134

00:06:40,370 --> 00:06:36,389

tickets soon I guess we have our

135

00:06:42,500 --> 00:06:40,380

speakers all our speakers booked and we

136

00:06:47,180 --> 00:06:42,510

have their accommodations booked so

137

00:06:51,189 --> 00:06:47,190

that's a good thing and the program is

138

00:06:54,320 --> 00:06:51,199

finished we have some very interesting

139

00:06:58,490 --> 00:06:54,330

speakers when it comes to the exorcism

140

00:07:01,969 --> 00:06:58,500

topic because we invited a priest that

141

00:07:04,820 --> 00:07:01,979

is school or he's a trained Exorcist as

142

00:07:08,570 --> 00:07:04,830

well so he he doesn't actively do him

143

00:07:10,909 --> 00:07:08,580

but he is trained as an exorcist and we

144

00:07:12,170 --> 00:07:10,919

also have the editor-in-chief of the

145

00:07:17,300 --> 00:07:12,180

only

146

00:07:18,860 --> 00:07:17,310

existing exorcist magazine so you

147

00:07:26,629 --> 00:07:18,870

imagine reading that while you waiting

148

00:07:28,520 --> 00:07:26,639

for a haircut oh yeah maybe in the

149

00:07:30,770 --> 00:07:28,530

doctor's waiting room or dentist you

150

00:07:32,740 --> 00:07:30,780

take your mind off the tooth yeah so now

151
00:07:36,740 --> 00:07:32,750
we're hitting waterboarding instead okay

152
00:07:38,240 --> 00:07:36,750
that's pretty strange yeah it sounds it

153
00:07:40,340 --> 00:07:38,250
sounds really interesting and I think

154
00:07:43,490 --> 00:07:40,350
the where it's being held you you I

155
00:07:45,080 --> 00:07:43,500
looked at the the website and where it's

156
00:07:46,670 --> 00:07:45,090
being held the conference your

157
00:07:48,920 --> 00:07:46,680
conference it looks like a beautiful

158
00:07:51,370 --> 00:07:48,930
part of the world so it's going to be in

159
00:07:53,749 --> 00:07:51,380
Russia the city of Rostov in Poland

160
00:07:55,430 --> 00:07:53,759
which has an International Airport so

161
00:07:58,610 --> 00:07:55,440
even if you had never heard of that city

162
00:08:00,620 --> 00:07:58,620
can still get there and it's going to be

163
00:08:02,390 --> 00:08:00,630

at the State University of Rostov we

164

00:08:05,390 --> 00:08:02,400

actually had issues with a venue because

165

00:08:07,820 --> 00:08:05,400

Poland is a very Catholic and very

166

00:08:12,170 --> 00:08:07,830

conservative country so the first venue

167

00:08:14,900 --> 00:08:12,180

where we were the university board voted

168

00:08:18,230 --> 00:08:14,910

us out because of one of the sponsors of

169

00:08:20,390 --> 00:08:18,240

the of the university was devout

170

00:08:24,740 --> 00:08:20,400

Catholic and did not want didn't want us

171

00:08:26,270 --> 00:08:24,750

there so yeah so now we're going to be

172

00:08:29,870 --> 00:08:26,280

at the state university which has the

173

00:08:31,730 --> 00:08:29,880

academic freedom and we are very excited

174

00:08:34,940 --> 00:08:31,740

to be there yeah we're going to be in

175

00:08:36,949 --> 00:08:34,950

the department of law and economics so

176

00:08:38,510 --> 00:08:36,959

and it's a modern to modern modern

177

00:08:40,519 --> 00:08:38,520

buildings it's very very large so

178

00:08:42,260 --> 00:08:40,529

everyone will fit in that's fantastic

179

00:08:44,360 --> 00:08:42,270

well folks there's the word once more as

180

00:08:46,250 --> 00:08:44,370

we keep reminding you and immediately

181

00:08:49,070 --> 00:08:46,260

after this interview I'll play the promo

182

00:08:52,220 --> 00:08:49,080

just to remind people once again will

183

00:08:54,829 --> 00:08:52,230

Claire it's so nice to meet you and I'm

184

00:08:57,410 --> 00:08:54,839

so delighted that you were here in New

185

00:08:59,329 --> 00:08:57,420

York and I think it's bad about time we

186

00:09:05,170 --> 00:08:59,339

rush back for the rest of the afternoons

187

00:09:05,180 --> 00:09:15,179

[Music]

188

00:09:21,460 --> 00:09:18,790

melis kappa cheap satella Travis Clare

189

00:09:22,960 --> 00:09:21,470

pinion birth spool Oh Eliza Turki every

190

00:09:24,329 --> 00:09:22,970

upscale house scattered scale Congress

191

00:09:26,679 --> 00:09:24,339

to Vitesse it's a certain Maps

192

00:09:28,929 --> 00:09:26,689

additional Congress separate cannot post

193

00:09:31,389 --> 00:09:28,939

Coverity Slavic or Deva Katta who drew

194

00:09:34,869 --> 00:09:31,399

her hoard invitato through Rosati I a

195

00:09:37,119 --> 00:09:34,879

moot Stephen Bosworth th dead opposing

196

00:09:40,269 --> 00:09:37,129

the sixties 5000 sickness nico so james

197

00:09:42,569 --> 00:09:40,279

randi susan gerbic mark Lynas Susan

198

00:09:45,879 --> 00:09:42,579

Blackmore Scotland felt Adele she

199

00:09:48,699 --> 00:09:45,889

Provost a automatic echo nabu's st ave

200

00:09:52,239 --> 00:09:48,709

de cerdo veda immediate paramachaitanya

201
00:09:55,059 --> 00:09:52,249
doll she procopius to pinkie approve its

202
00:09:57,340 --> 00:09:55,069
inform at sea fish Dana Euroskeptics con

203
00:09:59,340 --> 00:09:57,350
petka org and the bonus naked on a

204
00:10:02,810 --> 00:09:59,350
Facebook ooh the shima-san of ass

205
00:10:05,450 --> 00:10:02,820
[Music]

206
00:10:07,730 --> 00:10:05,460
hello dear skeptical friends this is

207
00:10:11,330 --> 00:10:07,740
cleric Lambert who organizer of the

208
00:10:13,220 --> 00:10:11,340
European skeptics Congress 2017 this

209
00:10:15,620 --> 00:10:13,230
year the Congress will be held in broad

210
00:10:18,800 --> 00:10:15,630
South Poland on September 22nd to 24th

211
00:10:21,500 --> 00:10:18,810
and is my absolute pleasure to invite

212
00:10:24,980 --> 00:10:21,510
you to attend come and listen to talks

213
00:10:27,530 --> 00:10:24,990

by James Randi susan gerbic mark Loomis

214

00:10:30,140 --> 00:10:27,540

Susan Blackmore Scotland Feld and others

215

00:10:32,510 --> 00:10:30,150

discuss topics like science and religion

216

00:10:35,240 --> 00:10:32,520

to science and media paranormal

217

00:10:36,980 --> 00:10:35,250

investigation and more to buy a ticket

218

00:10:40,910 --> 00:10:36,990

and to get more information by the

219

00:10:46,210 --> 00:10:40,920

Congress go to Euroskeptics con org or

220

00:10:59,009 --> 00:10:55,400

[Music]

221

00:11:00,600 --> 00:10:59,019

and now direct from the cafe and

222

00:11:03,870 --> 00:11:00,610

Australia's Science Channel

223

00:11:07,259 --> 00:11:03,880

it's brouhaha science in less time than

224

00:11:13,560 --> 00:11:07,269

it takes to order a coffee with Ben

225

00:11:15,240 --> 00:11:13,570

Lewis should Australia have a Space

226

00:11:17,970 --> 00:11:15,250

Agency yes

227

00:11:20,310 --> 00:11:17,980

a million times yes more yeses and stars

228

00:11:21,810 --> 00:11:20,320

in the universe the government has

229

00:11:24,750 --> 00:11:21,820

announced they'll look at creating a

230

00:11:27,420 --> 00:11:24,760

very own Space Agency viral view during

231

00:11:30,240 --> 00:11:27,430

March 2018 and if you can't tell we're

232

00:11:32,639 --> 00:11:30,250

right behind the idea a Space Agency

233

00:11:35,460 --> 00:11:32,649

isn't just some vanity project it

234

00:11:37,130 --> 00:11:35,470

inspires kids to study stem building a

235

00:11:39,840 --> 00:11:37,140

space industry stimulates the economy

236

00:11:43,290 --> 00:11:39,850

for every dollar NASA spends the u.s.

237

00:11:45,269 --> 00:11:43,300

sees at least 10 returned it forces us

238

00:11:48,060 --> 00:11:45,279

to create a cohesive plan for our space

239

00:11:49,440 --> 00:11:48,070

activities and it develops technology

240

00:11:51,780 --> 00:11:49,450

that was specifically benefit our

241

00:11:54,000 --> 00:11:51,790

country like satellite monitoring that

242

00:11:57,510 --> 00:11:54,010

can help farmers and communications in

243

00:11:59,519 --> 00:11:57,520

rural areas plus it massively boosts

244

00:12:02,310 --> 00:11:59,529

international collaboration why would

245

00:12:04,470 --> 00:12:02,320

you not want that Plus now that

246

00:12:06,360 --> 00:12:04,480

Australia is on Elon Musk's radar you

247

00:12:08,730 --> 00:12:06,370

never know what opportunities could come

248

00:12:10,740 --> 00:12:08,740

next we've got one of the world's best

249

00:12:13,319 --> 00:12:10,750

sites for rocket launches at warmer just

250

00:12:15,000 --> 00:12:13,329

begging to be used more a Hyperloop

251
00:12:18,210 --> 00:12:15,010
straights warmer or where Rockets being

252
00:12:20,100 --> 00:12:18,220
launched and recovered yes please to us

253
00:12:23,280 --> 00:12:20,110
this is a no-brainer

254
00:12:25,650 --> 00:12:23,290
just do it the benefits are massive and

255
00:12:28,740 --> 00:12:25,660
will be short-sighted to not establish

256
00:12:30,810 --> 00:12:28,750
an agency the space world's eyes will be

257
00:12:33,480 --> 00:12:30,820
on us in September during a worldwide

258
00:12:37,260 --> 00:12:33,490
conference in Adelaide it's so far we've

259
00:12:37,920 --> 00:12:37,270
got nothing to show it's time let's make

260
00:12:40,439 --> 00:12:37,930
this happen

261
00:12:44,050 --> 00:12:40,449
an Australian sized annal will be along

262
00:13:13,700 --> 00:12:47,420
for more brouhaha and australian science

263
00:13:19,010 --> 00:13:15,800

there are no such things as unicorns

264

00:13:21,620 --> 00:13:19,020

silly yes there are no there isn't

265

00:13:24,740 --> 00:13:21,630

Hey ladies what are you arguing about

266

00:13:27,350 --> 00:13:24,750

Joe thinks unicorns are real they fo are

267

00:13:30,620 --> 00:13:27,360

let's look this up in the skeptics

268

00:13:33,290 --> 00:13:30,630

dictionary the word how can we do that

269

00:13:35,270 --> 00:13:33,300

in this perk there are no computers here

270

00:13:38,180 --> 00:13:35,280

you ladies probably don't know about the

271

00:13:41,090 --> 00:13:38,190

skeptics dictionary app available now

272

00:13:43,490 --> 00:13:41,100

for iPhone iPad and iPod Touch in the

273

00:13:45,530 --> 00:13:43,500

app store yeah we do we've been

274

00:13:49,430 --> 00:13:45,540

listening to the skeptic zone for years

275

00:13:51,770 --> 00:13:49,440

you know yes okay the app lets you

276

00:13:55,490 --> 00:13:51,780

access all the great skeptics dictionary

277

00:13:58,460 --> 00:13:55,500

articles when you're on the go yeah let

278

00:14:01,520 --> 00:13:58,470

me look up unicorns oh cool hi dee

279

00:14:03,740 --> 00:14:01,530

prepare to be proven wrong it says here

280

00:14:06,890 --> 00:14:03,750

the Unicorn is a creature from fables

281

00:14:08,570 --> 00:14:06,900

uh-huh actually I see now that someone

282

00:14:13,400 --> 00:14:08,580

just dumped their ice cream cone on that

283

00:14:23,130 --> 00:14:13,410

horse's head Thanks that's just some guy

284

00:14:36,400 --> 00:14:27,100

it's the raw skeptic report with Heidi

285

00:14:38,290 --> 00:14:36,410

Robertson hello everyone Heidi Robertson

286

00:14:41,380 --> 00:14:38,300

from the Northern Rivers vaccination

287

00:14:44,319 --> 00:14:41,390

supporters here a few weeks ago I

288

00:14:47,470 --> 00:14:44,329

attended the star staff weekend in Byron

289

00:14:50,819 --> 00:14:47,480

Bay two days of talks on astronomy

290

00:14:53,769 --> 00:14:50,829

astrophysics astrophotography and

291

00:14:57,190 --> 00:14:53,779

interspersed with some day and night

292

00:14:59,170 --> 00:14:57,200

stargazing so this report is a rundown

293

00:15:01,500 --> 00:14:59,180

of the speakers and the topics of their

294

00:15:04,269 --> 00:15:01,510

talks that we enjoyed over the weekend

295

00:15:07,480 --> 00:15:04,279

along with a couple of interviews I had

296

00:15:12,160 --> 00:15:07,490

with attendees and a snippet of my

297

00:15:14,110 --> 00:15:12,170

encounter on Mars we will put links to

298

00:15:16,990 --> 00:15:14,120

the work of the following speakers in

299

00:15:23,860 --> 00:15:17,000

this week's show notes at skeptic zone

300

00:15:26,800 --> 00:15:23,870

dot TV on Saturday or Saturn day as the

301
00:15:29,740 --> 00:15:26,810
program said the program incidentally

302
00:15:34,480 --> 00:15:29,750
also had a complimentary horoscope for

303
00:15:36,340 --> 00:15:34,490
June 2017 and I quote Aries the stars

304
00:15:39,220 --> 00:15:36,350
and planets will not affect your life in

305
00:15:41,699 --> 00:15:39,230
any way Taurus the stars and planets

306
00:15:44,920 --> 00:15:41,709
will not affect your life in any way

307
00:15:49,329 --> 00:15:44,930
Gemini the stars and planets will not

308
00:15:52,329 --> 00:15:49,339
affect your life in any way and so on so

309
00:15:55,079 --> 00:15:52,339
Saturn day began with a welcome to

310
00:15:57,970 --> 00:15:55,089
country by an australian indigenous

311
00:16:00,819 --> 00:15:57,980
representative of the iroquois people of

312
00:16:03,250 --> 00:16:00,829
byron bay honoring the land on which the

313
00:16:06,819 --> 00:16:03,260

event was held and its first inhabitants

314

00:16:09,610 --> 00:16:06,829

past and present that was followed by a

315

00:16:12,480 --> 00:16:09,620

talk from dr. Dwayne hamako from Monash

316

00:16:16,540 --> 00:16:12,490

University who spoke about Aboriginal

317

00:16:17,259 --> 00:16:16,550

astronomy 60,000 years of science and

318

00:16:21,090 --> 00:16:17,269

culture

319

00:16:25,150 --> 00:16:21,100

I was absolutely enthralled by this talk

320

00:16:27,519 --> 00:16:25,160

Dwayne a white American has a deeper

321

00:16:30,730 --> 00:16:27,529

understanding of Australian indigenous

322

00:16:31,820 --> 00:16:30,740

cultures then I daresay most citizens of

323

00:16:35,200 --> 00:16:31,830

Australia have

324

00:16:38,180 --> 00:16:35,210

yes I'm ashamed to say that includes me

325

00:16:39,860 --> 00:16:38,190

the ways in which Indigenous Australians

326

00:16:43,550 --> 00:16:39,870

preserve knowledge throughout the

327

00:16:48,040 --> 00:16:43,560

generations in song dance and astronomy

328

00:16:50,570 --> 00:16:48,050

is intricate complex and beautiful

329

00:16:54,440 --> 00:16:50,580

following this talk was mark

330

00:16:57,640 --> 00:16:54,450

G on astrophotography he describes his

331

00:17:01,280 --> 00:16:57,650

short film full moon silhouettes as

332

00:17:04,240 --> 00:17:01,290

quote inadvertently launching my

333

00:17:06,829 --> 00:17:04,250

international Astro photography career

334

00:17:08,690 --> 00:17:06,839

he spoke of uploading the video one

335

00:17:10,970 --> 00:17:08,700

night and waking up the next morning

336

00:17:11,780 --> 00:17:10,980

shocked to discover that the video had

337

00:17:14,750 --> 00:17:11,790

gone viral

338

00:17:17,690 --> 00:17:14,760

as he slept we watched the video on the

339

00:17:19,910 --> 00:17:17,700

big screen in a dark room of a full moon

340

00:17:22,490 --> 00:17:19,920

rising with a lighthouse in the

341

00:17:24,620 --> 00:17:22,500

foreground and silhouettes of people

342

00:17:26,960 --> 00:17:24,630

slowly climbing the stairs up to the

343

00:17:30,170 --> 00:17:26,970

lighthouse in order to enjoy the rising

344

00:17:32,900 --> 00:17:30,180

of the moon it was set to a beautiful

345

00:17:35,300 --> 00:17:32,910

piece of music it was evident that it

346

00:17:38,180 --> 00:17:35,310

evoked a strong emotional response from

347

00:17:40,100 --> 00:17:38,190

the members of the audience apparent by

348

00:17:42,650 --> 00:17:40,110

the hush that fell over the crowd during

349

00:17:45,890 --> 00:17:42,660

the viewing followed by the enthusiastic

350

00:17:48,680 --> 00:17:45,900

applause at the end it was easy to see

351

00:17:50,690 --> 00:17:48,690

why it went viral but it was interesting

352

00:17:52,550 --> 00:17:50,700

having mark explained exactly what went

353

00:17:56,000 --> 00:17:52,560

into the creation of it such as the

354

00:17:59,360 --> 00:17:56,010

timing positioning camera settings the

355

00:18:00,920 --> 00:17:59,370

subsequent editing and so on apparently

356

00:18:02,840 --> 00:18:00,930

he had a few people contact him

357

00:18:07,670 --> 00:18:02,850

skeptical that the whole thing wasn't

358

00:18:11,780 --> 00:18:07,680

just photoshopped in some way go to WWE

359

00:18:15,530 --> 00:18:11,790

art of night calm to see some of mark's

360

00:18:18,650 --> 00:18:15,540

work you won't regret it we broke for

361

00:18:21,510 --> 00:18:18,660

lunch and I grabbed the opportunity to

362

00:18:24,400 --> 00:18:21,520

have a walk on the surface of Mars

363

00:18:26,800 --> 00:18:24,410

Here I am at the starstuff convention

364

00:18:28,870 --> 00:18:26,810

and run our lunch break of the first day

365

00:18:32,560 --> 00:18:28,880

at the moment and I'm just having a look

366

00:18:34,210 --> 00:18:32,570

at one of the exhibits here which I'm

367

00:18:37,690 --> 00:18:34,220

about to have a go of myself it's a

368

00:18:41,140 --> 00:18:37,700

virtual reality app and with me I've got

369

00:18:45,310 --> 00:18:41,150

Winn hi I'm Julian Julian and and Lucas

370

00:18:47,980 --> 00:18:45,320

Lucas and I'm lies and Julian Lucas and

371

00:18:51,490 --> 00:18:47,990

Lars right so you're all developers of

372

00:18:53,650 --> 00:18:51,500

this app the company but we all have

373

00:18:56,500 --> 00:18:53,660

different roles describe what the app is

374

00:18:58,870 --> 00:18:56,510

to start with so the app the app stick

375

00:19:00,520 --> 00:18:58,880

in 3d scans that nASA has generated of

376

00:19:04,120 --> 00:19:00,530

the Martian surface and it's not put

377

00:19:06,700 --> 00:19:04,130

them into VR just for people to use okay

378

00:19:08,260 --> 00:19:06,710

and how long did it take you guys to to

379

00:19:10,720 --> 00:19:08,270

develop the app and did you have to get

380

00:19:13,420 --> 00:19:10,730

any sort of permission from NASA

381

00:19:15,280 --> 00:19:13,430

themselves know if this is actually free

382

00:19:18,400 --> 00:19:15,290

open open stuff that anyone can download

383

00:19:20,320 --> 00:19:18,410

it's just very huge file sizes so like

384

00:19:23,200 --> 00:19:20,330

terabytes upon terabytes so it has taken

385

00:19:24,370 --> 00:19:23,210

us a while to develop about one year to

386

00:19:26,590 --> 00:19:24,380

get it to the stage where it's at now

387

00:19:28,630 --> 00:19:26,600

and obviously we look to improve it

388

00:19:32,200 --> 00:19:28,640

every you know every so often at updates

389

00:19:34,030 --> 00:19:32,210

you know after out the process yeah six

390

00:19:36,490 --> 00:19:34,040

weeks to download all the data yeah oh

391

00:19:37,770 --> 00:19:36,500

my goodness okay and what's what's your

392

00:19:42,850 --> 00:19:37,780

background

393

00:19:45,160 --> 00:19:42,860

in developing apps have you developed

394

00:19:47,440 --> 00:19:45,170

any other apps in the past mainly only

395

00:19:49,570 --> 00:19:47,450

private stuff nothing's really seen the

396

00:19:52,090 --> 00:19:49,580

light of day but by train I'm a software

397

00:19:55,480 --> 00:19:52,100

engineer so that's yeah that's just who

398

00:19:56,860 --> 00:19:55,490

I am it's well I actually actually went

399

00:19:58,300 --> 00:19:56,870

to high school with Lucas and he came to

400

00:20:00,880 --> 00:19:58,310

me with this VR idea I just wanted to be

401
00:20:01,780 --> 00:20:00,890
involved in any capacity so I'm helping

402
00:20:03,490 --> 00:20:01,790
out with the business side of things

403
00:20:04,540 --> 00:20:03,500
just getting getting you know getting

404
00:20:06,700 --> 00:20:04,550
the ball rolling getting it out there

405
00:20:08,740 --> 00:20:06,710
getting it to schools getting teaching

406
00:20:11,260 --> 00:20:08,750
kids about space and using this app as a

407
00:20:13,300 --> 00:20:11,270
tool for that okay and so I'm seeing a

408
00:20:14,720 --> 00:20:13,310
sign there so the app is actually called

409
00:20:18,350 --> 00:20:14,730
the Red Planet

410
00:20:20,930 --> 00:20:18,360
and you can use your own VR headset

411
00:20:23,330 --> 00:20:20,940
virtual reality headset so today what

412
00:20:25,640 --> 00:20:23,340
we're demoing is the HTC vive version of

413
00:20:27,020 --> 00:20:25,650

it so it is one of the more expensive VR

414

00:20:29,120 --> 00:20:27,030

systems but it's also the most stable

415

00:20:31,100 --> 00:20:29,130

and reliable in saying that though we've

416

00:20:34,370 --> 00:20:31,110

planned to release it on you know

417

00:20:36,800 --> 00:20:34,380

Samsung gear VR Google cardboard Google

418

00:20:40,250 --> 00:20:36,810

dream dream view I think that's the one

419

00:20:41,870 --> 00:20:40,260

that's called Google daydream which is

420

00:20:43,910 --> 00:20:41,880

that Google's new headset we look at

421

00:20:45,860 --> 00:20:43,920

doing it or even ps4 we're looking at

422

00:20:47,600 --> 00:20:45,870

doing on launching onto that that way

423

00:20:53,510 --> 00:20:47,610

every everyone will have a go at it

424

00:20:54,650 --> 00:20:53,520

because Google cardboard is \$20 the app

425

00:20:55,910 --> 00:20:54,660

it hasn't been launched we're looking

426
00:20:58,220 --> 00:20:55,920
about towards the end of the year maybe

427
00:21:01,280 --> 00:20:58,230
early next year to get to its stable the

428
00:21:03,290 --> 00:21:01,290
most ablest form but yet all the all the

429
00:21:05,300 --> 00:21:03,300
I guess the gear necessary it's all

430
00:21:06,710 --> 00:21:05,310
readily available online or through like

431
00:21:09,260 --> 00:21:06,720
jb high flyers those two kind of stuff

432
00:21:11,420 --> 00:21:09,270
like that okay so you can basically put

433
00:21:14,000 --> 00:21:11,430
on your head gear and you can see what

434
00:21:14,870 --> 00:21:14,010
it might be like to walk around on the

435
00:21:16,430 --> 00:21:14,880
planet Mars

436
00:21:18,830 --> 00:21:16,440
the really cool thing about this app in

437
00:21:20,120 --> 00:21:18,840
particular is it's it's very very

438
00:21:21,980 --> 00:21:20,130

accurate because we've used you know

439

00:21:24,290 --> 00:21:21,990

satellite data this is very accurate if

440

00:21:25,580 --> 00:21:24,300

there's a if there's a valley or a you

441

00:21:27,860 --> 00:21:25,590

know equation that you see in the app

442

00:21:30,710 --> 00:21:27,870

it's there yeah so you've got an area

443

00:21:32,660 --> 00:21:30,720

typed out here I cap a square box that

444

00:21:35,180 --> 00:21:32,670

you have to stay inside what happens if

445

00:21:36,620 --> 00:21:35,190

you go outside the box nothing really

446

00:21:38,570 --> 00:21:36,630

just might bump into if you tell it a

447

00:21:40,280 --> 00:21:38,580

few thousand dollar telescope doesn't

448

00:21:42,590 --> 00:21:40,290

have to pay someone's bill but

449

00:21:44,750 --> 00:21:42,600

essentially this is the work area so you

450

00:21:46,250 --> 00:21:44,760

can walk around this in VR and kind of

451
00:21:47,630 --> 00:21:46,260
have a look at the ground

452
00:21:49,970 --> 00:21:47,640
you know kneel down and have a look at

453
00:21:51,350 --> 00:21:49,980
the terrain as well okay but yeah we've

454
00:21:53,390 --> 00:21:51,360
restricted it just for today to this

455
00:21:55,400 --> 00:21:53,400
three meter space less than 3 meters

456
00:21:59,300 --> 00:21:55,410
today but I think maximum here is I

457
00:22:02,570 --> 00:21:59,310
think 3 meters 5 by 5 meters there you

458
00:22:03,799 --> 00:22:02,580
go alright well there's a gentleman just

459
00:22:06,139 --> 00:22:03,809
having a go but now

460
00:22:08,989 --> 00:22:06,149
can I ask you sir what you think of the

461
00:22:10,639 --> 00:22:08,999
the app so far just yeah this is amazing

462
00:22:14,330 --> 00:22:10,649
he's got the headset on you can't see me

463
00:22:17,149 --> 00:22:14,340

yeah yeah this is out of control

464

00:22:22,639 --> 00:22:17,159

yeah you spend hours in losing a Jason

465

00:22:25,759 --> 00:22:22,649

Bourne on math but oh there's a really

466

00:22:37,849 --> 00:22:25,769

amazing I'm gonna wait in line and I'm

467

00:22:39,229 --> 00:22:37,859

gonna have a go myself in a minute you

468

00:22:39,409 --> 00:22:39,239

to that newbie I just reach out and grab

469

00:22:42,379 --> 00:22:39,419

it

470

00:22:43,759 --> 00:22:42,389

Oh crikey so there's a remote control

471

00:22:45,289 --> 00:22:43,769

that I've just been handed I can't see

472

00:22:47,180 --> 00:22:45,299

the hand that's giving it to me but I'm

473

00:22:55,399 --> 00:22:47,190

seeing the remote control and I'm seeing

474

00:22:57,499 --> 00:22:55,409

the Stars okay okay so I'm looking

475

00:23:03,310 --> 00:22:57,509

directly down on the surface from this

476

00:23:04,870 --> 00:23:03,320

to this and that's a mess right now

477

00:23:06,130 --> 00:23:04,880

you can bend down if you want to do it

478

00:23:12,490 --> 00:23:06,140

just just kneel down look at the ground

479

00:23:20,410 --> 00:23:12,500

get really close okay wow it's quite

480

00:23:22,870 --> 00:23:20,420

incredible this is the first time I've

481

00:23:37,030 --> 00:23:22,880

ever actually worn a VR headset so this

482

00:23:38,610 --> 00:23:37,040

is quite everyone's got to try this this

483

00:23:42,730 --> 00:23:38,620

is amazing

484

00:23:47,490 --> 00:23:42,740

Wow Wow Wow I can't tell you how good

485

00:23:49,840 --> 00:23:47,500

this is it's just incredible you know

486

00:23:52,210 --> 00:23:49,850

what other features are you thinking of

487

00:23:54,370 --> 00:23:52,220

adding as if it's not enough already

488

00:23:55,810 --> 00:23:54,380

well right now the ground detail is sort

489

00:23:57,100 --> 00:23:55,820

of lacking so we want to add more rocks

490

00:23:59,350 --> 00:23:57,110

onto the ground I know that sounds

491

00:24:00,090 --> 00:23:59,360

simple but it just adds to the realism

492

00:24:01,860 --> 00:24:00,100

yeah

493

00:24:05,049 --> 00:24:01,870

[Music]

494

00:24:07,060 --> 00:24:05,059

maybe some sound effects sound effects

495

00:24:10,000 --> 00:24:07,070

yeah that'd be good as well what you

496

00:24:12,639 --> 00:24:10,010

might use like educational features just

497

00:24:13,930 --> 00:24:12,649

things that they point out specific

498

00:24:14,980 --> 00:24:13,940

location to the train and say hey you

499

00:24:20,289 --> 00:24:14,990

know look here that looks like there was

500

00:24:22,120 --> 00:24:20,299

water running across this place and you

501
00:24:24,760 --> 00:24:22,130
did you say before that you've taken it

502
00:24:27,430 --> 00:24:24,770
already into schools and in the next

503
00:24:30,669 --> 00:24:27,440
coming months yep just just so we can

504
00:24:32,649 --> 00:24:30,679
have the best experience for the kids

505
00:24:36,480 --> 00:24:32,659
actually just to get them interested in

506
00:24:41,350 --> 00:24:38,919
you're in Sydney ok we'll all the

507
00:24:44,139 --> 00:24:41,360
skeptics in Sydney keep an eye out for

508
00:24:48,039 --> 00:24:44,149
these guys where can they go on the

509
00:24:57,460 --> 00:24:48,049
world wide web to find a bit more about

510
00:25:00,130 --> 00:24:57,470
this and about you forward slash the red

511
00:25:02,919 --> 00:25:00,140
planet VR you can also visit our

512
00:25:05,110 --> 00:25:02,929
company's website which is Mac soft net

513
00:25:06,730 --> 00:25:05,120

dot au and that will just be more

514

00:25:08,049 --> 00:25:06,740

information about us as a company and

515

00:25:11,260 --> 00:25:08,059

what the things we're going to be

516

00:25:12,730 --> 00:25:11,270

launching from here on out well thank

517

00:25:23,440 --> 00:25:12,740

you so much I better let somebody else

518

00:25:25,409 --> 00:25:23,450

have a go after lunch dr. David Malin

519

00:25:28,810 --> 00:25:25,419

from the Australian astronomical

520

00:25:32,260 --> 00:25:28,820

observatory spoke about astro images

521

00:25:34,620 --> 00:25:32,270

from the ice age ancient astronomical

522

00:25:36,730 --> 00:25:34,630

imaging and how everything changed

523

00:25:38,830 --> 00:25:36,740

firstly with the invention of the

524

00:25:42,639 --> 00:25:38,840

telescope and then again with the advent

525

00:25:44,649 --> 00:25:42,649

of photography next up was dr. Fred

526

00:25:47,169 --> 00:25:44,659

Watson also of the Australian

527

00:25:49,840 --> 00:25:47,179

astronomical observatory who spoke about

528

00:25:52,149 --> 00:25:49,850

light pollution and the growing call for

529

00:25:54,190 --> 00:25:52,159

better designed outdoor lighting to

530

00:25:58,180 --> 00:25:54,200

improve both the nocturnal environment

531

00:26:00,490 --> 00:25:58,190

and avoid wasted energy obviously this

532

00:26:02,710 --> 00:26:00,500

is also a topic important to the Astro

533

00:26:04,360 --> 00:26:02,720

photographers out there who have a much

534

00:26:07,539 --> 00:26:04,370

better view of the night sky without

535

00:26:10,000 --> 00:26:07,549

loads of artificial light around dr.

536

00:26:12,269 --> 00:26:10,010

Katy Mac followed up from the University

537

00:26:14,240 --> 00:26:12,279

of Melbourne with a talk called

538

00:26:18,350 --> 00:26:14,250

dispatches from a dark

539

00:26:20,480 --> 00:26:18,360

universe as the program said come for

540

00:26:24,790 --> 00:26:20,490

the Big Bang stay for the possibility of

541

00:26:27,110 --> 00:26:24,800

the ultimate destruction of all reality

542

00:26:30,260 --> 00:26:27,120

sounds very uplifting doesn't it

543

00:26:33,980 --> 00:26:30,270

topics included dark matter dark energy

544

00:26:38,690 --> 00:26:33,990

and recent research on Higgs vacuum

545

00:26:41,810 --> 00:26:38,700

decay unfortunately I could not attend

546

00:26:44,360 --> 00:26:41,820

the gala dinner on Saturday night with

547

00:26:47,720 --> 00:26:44,370

dr. Kyle presenting a talk great moments

548

00:26:50,420 --> 00:26:47,730

in space why do stars have points why

549

00:26:53,540 --> 00:26:50,430

are asteroids God's way of inquiring

550

00:26:56,060 --> 00:26:53,550

gently about our space program what

551
00:27:00,380 --> 00:26:56,070
color is the universe gravitational

552
00:27:02,510 --> 00:27:00,390
waves and much more night sky to us and

553
00:27:03,970 --> 00:27:02,520
stargazing throughout the night followed

554
00:27:06,740 --> 00:27:03,980
the gala dinner

555
00:27:09,470 --> 00:27:06,750
if Saturn Day wasn't enough for you to

556
00:27:12,560 --> 00:27:09,480
wish you were there next up was Sun day

557
00:27:14,360 --> 00:27:12,570
but first here is an interview I had

558
00:27:17,570 --> 00:27:14,370
with one of the younger attendees of

559
00:27:20,800 --> 00:27:17,580
starstuff bow who I interviewed earlier

560
00:27:24,290 --> 00:27:20,810
in the day okay I'm here with another

561
00:27:25,010 --> 00:27:24,300
attendee at the star star festival who

562
00:27:27,770 --> 00:27:25,020
have we got here

563
00:27:31,760 --> 00:27:27,780

Oberg handsome bow and how old are you

564

00:27:34,970 --> 00:27:31,770

both I am turning 12 2012 okay and where

565

00:27:37,190 --> 00:27:34,980

you from I'm from Brunswick kids okay so

566

00:27:39,860 --> 00:27:37,200

you're a local not too far away yeah not

567

00:27:42,410 --> 00:27:39,870

too far and what made you interested in

568

00:27:44,630 --> 00:27:42,420

coming here today I like science I like

569

00:27:46,520 --> 00:27:44,640

stars so I thought it would just be cool

570

00:27:48,170 --> 00:27:46,530

to have a look yeah and we've only had

571

00:27:51,080 --> 00:27:48,180

two speakers so far but they've both

572

00:27:53,300 --> 00:27:51,090

been really interesting what did you

573

00:27:54,830 --> 00:27:53,310

think of the speakers this morning I

574

00:27:56,570 --> 00:27:54,840

thought it was quite amazing actually

575

00:27:58,190 --> 00:27:56,580

the second one in particular that was

576

00:28:00,620 --> 00:27:58,200

very interesting wasn't that emoji

577

00:28:02,360 --> 00:28:00,630

lithography did it get you inspired to

578

00:28:04,520 --> 00:28:02,370

try some Astro photography out for

579

00:28:07,130 --> 00:28:04,530

yourself maybe I don't know I don't

580

00:28:09,410 --> 00:28:07,140

really have a camera and I don't know if

581

00:28:11,870 --> 00:28:09,420

I'd be very good at it but you know it's

582

00:28:15,080 --> 00:28:11,880

an idea to think of I think so too

583

00:28:16,940 --> 00:28:15,090

look I'm 44 years old and I don't know

584

00:28:19,400 --> 00:28:16,950

how to take a photo but I'm inspired to

585

00:28:21,140 --> 00:28:19,410

start so if I can do it at 44 I reckon

586

00:28:22,730 --> 00:28:21,150

you can do it at 12 what do you reckon I

587

00:28:24,970 --> 00:28:22,740

mean you're gonna try to find up I think

588

00:28:26,950 --> 00:28:24,980

that's exactly right

589

00:28:28,660 --> 00:28:26,960

so who are the speakers that we've got

590

00:28:34,870 --> 00:28:28,670

on next you remember who they are

591

00:28:38,290 --> 00:28:34,880

dr. Fred Watson dr. Fred Watson oh well

592

00:28:42,130 --> 00:28:38,300

before him we've got a dr. David Malin

593

00:28:44,440 --> 00:28:42,140

oh yeah oh yeah yeah looking forward to

594

00:28:46,810 --> 00:28:44,450

that too so we've got we've got a few

595

00:28:48,880 --> 00:28:46,820

more a few more interesting talks today

596

00:28:52,420 --> 00:28:48,890

and then are you going to this special

597

00:28:54,160 --> 00:28:52,430

dinner tonight no a lot of epic VIP not

598

00:28:55,960 --> 00:28:54,170

a VIP this time well maybe next time

599

00:28:56,500 --> 00:28:55,970

yeah thank you very much for joining us

600

00:28:58,420 --> 00:28:56,510

bye

601
00:29:05,290 --> 00:28:58,430
Thanks pleasure to meet you yeah you too

602
00:29:07,900 --> 00:29:05,300
bye-bye sir Sunday June 25th 2017 kicked

603
00:29:10,480 --> 00:29:07,910
off with Jade rush wood from Byron Bay

604
00:29:12,640 --> 00:29:10,490
High School Jade's science teacher

605
00:29:14,770 --> 00:29:12,650
nominated her as a speaker as a result

606
00:29:17,950 --> 00:29:14,780
of one of her assignments on Jupiter and

607
00:29:20,470 --> 00:29:17,960
its moons orbits it was inspiring to see

608
00:29:23,110 --> 00:29:20,480
a young whippersnapper of about 17 years

609
00:29:24,840 --> 00:29:23,120
of age so passionate about astronomy and

610
00:29:27,370 --> 00:29:24,850
science

611
00:29:29,350 --> 00:29:27,380
Dylan O'Donnell was next up the event

612
00:29:32,200 --> 00:29:29,360
organizer who has the honor of having

613
00:29:36,190 --> 00:29:32,210

Australia's most easterly Observatory in

614

00:29:38,080 --> 00:29:36,200

his backyard in Byron Bay you may recall

615

00:29:41,110 --> 00:29:38,090

my interview with Dylan a few weeks back

616

00:29:42,180 --> 00:29:41,120

on the sceptic zone Dylan has an

617

00:29:46,420 --> 00:29:42,190

impressive collection of

618

00:29:49,540 --> 00:29:46,430

astrophotography at geography calm like

619

00:29:52,270 --> 00:29:49,550

geography but with a deep he has a

620

00:29:55,030 --> 00:29:52,280

particular image that also went viral of

621

00:29:57,340 --> 00:29:55,040

the International Space Station against

622

00:29:59,890 --> 00:29:57,350

the moon even better these

623

00:30:03,520 --> 00:29:59,900

high-resolution images are available for

624

00:30:05,440 --> 00:30:03,530

free on his web site and in fact I'm in

625

00:30:09,520 --> 00:30:05,450

the process of getting one of his images

626

00:30:12,150 --> 00:30:09,530

printed and framed for my land room mark

627

00:30:15,180 --> 00:30:12,160

G then spoke to us again but this time

628

00:30:16,840 --> 00:30:15,190

took us through how he takes widefield

629

00:30:19,210 --> 00:30:16,850

astrophotography images

630

00:30:21,460 --> 00:30:19,220

his camera settings and techniques and

631

00:30:23,650 --> 00:30:21,470

showed us how he gets the best out of

632

00:30:28,540 --> 00:30:23,660

his images with the software he uses and

633

00:30:31,450 --> 00:30:28,550

a process called stacking lunchtime on

634

00:30:33,850 --> 00:30:31,460

Sunday was upon us and afterward we

635

00:30:37,060 --> 00:30:33,860

kicked off again with dr. Alan Duffy

636

00:30:37,640 --> 00:30:37,070

with life the universe and everything we

637

00:30:40,490 --> 00:30:37,650

can't

638

00:30:44,200 --> 00:30:40,500

see are we alone where did we come from

639

00:30:47,090 --> 00:30:44,210

and as Einstein always have to be right

640

00:30:48,560 --> 00:30:47,100

dr. Alan Duffy is also going to be one

641

00:30:51,020 --> 00:30:48,570

of the speakers at this year's

642

00:30:54,620 --> 00:30:51,030

Australian national skeptics convention

643

00:30:57,250 --> 00:30:54,630

in Sydney a Q&A followed with the always

644

00:31:00,470 --> 00:30:57,260

charming and entertaining dr. Karl

645

00:31:02,870 --> 00:31:00,480

followed by Jamie Anderson from Gilmour

646

00:31:05,660 --> 00:31:02,880

space technologies talking about the

647

00:31:08,150 --> 00:31:05,670

challenge of building rockets using

648

00:31:11,240 --> 00:31:08,160

breakthroughs in safe propulsion and 3d

649

00:31:15,020 --> 00:31:11,250

printing and providing truly low-cost

650

00:31:18,320 --> 00:31:15,030

access to space the last talk of sunday

651
00:31:20,870 --> 00:31:18,330
was Mikaela Jeffrey with an overview of

652
00:31:26,030 --> 00:31:20,880
the European Space Agency's operations

653
00:31:28,700 --> 00:31:26,040
in Australia the starstuff event the

654
00:31:31,400 --> 00:31:28,710
first of its kind in byron bay was sold

655
00:31:34,610 --> 00:31:31,410
out which was fantastic for the

656
00:31:36,740 --> 00:31:34,620
organizer Dylan I'm going to hold Dylan

657
00:31:38,990 --> 00:31:36,750
Dee's comment that he may well put on

658
00:31:43,460 --> 00:31:39,000
another astronomy event next year in

659
00:31:46,250 --> 00:31:43,470
Byron Bay the 30th of June 2018 I think

660
00:31:48,230 --> 00:31:46,260
he mentioned so keep that date free in

661
00:31:51,620 --> 00:31:48,240
your calendar and come on down to byron

662
00:31:54,760 --> 00:31:51,630
bay it was truly a treat to have this

663
00:31:57,650 --> 00:31:54,770

fabulous science heavy event with such

664

00:32:00,230 --> 00:31:57,660

inspirational speakers leaders in their

665

00:32:02,090 --> 00:32:00,240

respective fields right in the middle of

666

00:32:05,630 --> 00:32:02,100

a region renowned for its usual

667

00:32:09,260 --> 00:32:05,640

prevalence of whoo it warms the heart

668

00:32:12,410 --> 00:32:09,270

that we do in fact have a population of

669

00:32:15,800 --> 00:32:12,420

science enthusiasts here and served as a

670

00:32:19,310 --> 00:32:15,810

reminder that sensible curious critical

671

00:32:21,080 --> 00:32:19,320

thinkers are walking among us even when

672

00:32:23,870 --> 00:32:21,090

it seems like the world has succumbed to

673

00:32:26,270 --> 00:32:23,880

a post truth era of pseudoscience and

674

00:32:29,060 --> 00:32:26,280

fake news

675

00:32:31,100 --> 00:32:29,070

that's all from me for now thank you for

676

00:32:33,350 --> 00:32:31,110

listening and until next time this has

677

00:32:35,900 --> 00:32:33,360

been hi dear Overton of the Northern

678

00:32:38,750 --> 00:32:35,910

Rivers vaccination supporters signing

679

00:32:54,080 --> 00:32:51,580

[Music]

680

00:32:56,480 --> 00:32:54,090

now on Belfast fm we turn to the

681

00:32:58,550 --> 00:32:56,490

personal ads easygoing and confident

682

00:33:01,220 --> 00:32:58,560

skeptic seeks other critical thinkers

683

00:33:03,230 --> 00:33:01,230

for fun laughter and good times must be

684

00:33:05,330 --> 00:33:03,240

willing to apply logic liberally and a

685

00:33:07,400 --> 00:33:05,340

good listener expect something new and

686

00:33:09,410 --> 00:33:07,410

interesting every month come and meet me

687

00:33:11,240 --> 00:33:09,420

in Belfast in Northern Ireland if this

688

00:33:23,900 --> 00:33:11,250

sounds like you check out my profile on

689

00:33:25,670 --> 00:33:23,910

Belfast sceptics calm music now we bring

690

00:33:29,810 --> 00:33:25,680

you part 1 of a series of interviews

691

00:33:31,580 --> 00:33:29,820

with an read the executive director of

692

00:33:34,790 --> 00:33:31,590

the National Center for Science

693

00:33:37,010 --> 00:33:34,800

education for 15 years she worked as a

694

00:33:39,830 --> 00:33:37,020

research biologist at the Armed Forces

695

00:33:43,640 --> 00:33:39,840

Institute of Pathology where she was

696

00:33:46,460 --> 00:33:43,650

responsible for sequencing the 1918 flu

697

00:33:50,090 --> 00:33:46,470

virus she served as a senior program

698

00:33:52,520 --> 00:33:50,100

officer at the NRC's Board of Life

699

00:33:55,100 --> 00:33:52,530

Sciences for five years and most

700

00:33:58,250 --> 00:33:55,110

recently as a director of the American

701
00:34:00,440 --> 00:33:58,260
Academy of microbiology I caught up with

702
00:34:03,960 --> 00:34:00,450
Anne Reed at the National Center for

703
00:34:08,650 --> 00:34:03,970
Science education in Oakland California

704
00:34:13,510 --> 00:34:11,470
well folks once again I find myself in

705
00:34:14,950 --> 00:34:13,520
beautiful downtown Oakland at the

706
00:34:15,760 --> 00:34:14,960
offices of the National Center of

707
00:34:18,040 --> 00:34:15,770
Science education

708
00:34:20,470 --> 00:34:18,050
I'm with Anne Reed hello Anne hello it's

709
00:34:21,760 --> 00:34:20,480
really nice to be here in your well I

710
00:34:24,330 --> 00:34:21,770
say new office

711
00:34:27,400 --> 00:34:24,340
not exactly do you telling me you moved

712
00:34:29,770 --> 00:34:27,410
a year-plus ago yeah almost a year and a

713
00:34:32,410 --> 00:34:29,780

half and what was the reason for that

714

00:34:34,780 --> 00:34:32,420

just a financial just convenience we

715

00:34:37,360 --> 00:34:34,790

wanted to be in offices that had more

716

00:34:40,300 --> 00:34:37,370

private space our old offices were very

717

00:34:43,030 --> 00:34:40,310

open and all of us spend a great deal of

718

00:34:45,730 --> 00:34:43,040

time writing and a great deal of time on

719

00:34:48,250 --> 00:34:45,740

the phone and so overhearing everyone

720

00:34:50,800 --> 00:34:48,260

all the time was not optimal for

721

00:34:52,180 --> 00:34:50,810

productivity right right so but you're

722

00:34:53,950 --> 00:34:52,190

not a million miles away you just did

723

00:34:58,780 --> 00:34:53,960

another part of Oakland where one BART

724

00:35:02,230 --> 00:34:58,790

station yes offices now I've been I've

725

00:35:03,760 --> 00:35:02,240

so enjoyed visiting the National Center

726
00:35:07,000 --> 00:35:03,770
for Science education of the many years

727
00:35:09,580 --> 00:35:07,010
and chatting to the director Hoover that

728
00:35:11,920 --> 00:35:09,590
might be usually GB Scott of course many

729
00:35:14,590 --> 00:35:11,930
years and you've been in the role now

730
00:35:19,450 --> 00:35:14,600
for two years and I guess a three and a

731
00:35:22,300 --> 00:35:19,460
half I know it happens doesn't it yeah

732
00:35:24,100 --> 00:35:22,310
time flies as they say and well how's it

733
00:35:26,080 --> 00:35:24,110
going in the last three and a half years

734
00:35:29,070 --> 00:35:26,090
are you enjoying it it's going very well

735
00:35:32,400 --> 00:35:29,080
it's very interesting a very

736
00:35:35,860 --> 00:35:32,410
multi-faceted problem to try to to solve

737
00:35:40,120 --> 00:35:35,870
it's a big challenge and and in a way

738
00:35:42,760 --> 00:35:40,130

that problem has broadened out in since

739

00:35:46,480 --> 00:35:42,770

I've been here one of the things that I

740

00:35:48,160 --> 00:35:46,490

was asked to do by the board and and the

741

00:35:50,980 --> 00:35:48,170

rest of the staff talked about it too

742

00:35:56,590 --> 00:35:50,990

was that NCSE was always on the

743

00:35:58,680 --> 00:35:56,600

defensive yes we were reacting to bad

744

00:36:01,030 --> 00:35:58,690

stuff that happens whether it be a

745

00:36:04,450 --> 00:36:01,040

legislature that's trying to pass a bill

746

00:36:06,280 --> 00:36:04,460

that would allow teachers to teach non

747

00:36:08,770 --> 00:36:06,290

science in the science classroom or a

748

00:36:11,140 --> 00:36:08,780

school board in the case of kids biller

749

00:36:12,940 --> 00:36:11,150

versus dover trying to introduce a

750

00:36:14,800 --> 00:36:12,950

textbook that was non-scientific and

751

00:36:17,290 --> 00:36:14,810

require their teachers to teach from it

752

00:36:19,630 --> 00:36:17,300

all the way down to lots and lots of

753

00:36:21,490 --> 00:36:19,640

little individual what we call flare-ups

754

00:36:22,340 --> 00:36:21,500

where someone would call and say my

755

00:36:24,950 --> 00:36:22,350

child just came

756

00:36:26,480 --> 00:36:24,960

with an assignment that asks them to say

757

00:36:30,470 --> 00:36:26,490

that the earth is ten thousand years old

758

00:36:33,140 --> 00:36:30,480

or parent coming in and saying I want my

759

00:36:36,680 --> 00:36:33,150

child to opt out of the evolution part

760

00:36:39,110 --> 00:36:36,690

of the biology class we and we still

761

00:36:42,590 --> 00:36:39,120

handle those although many fewer than we

762

00:36:45,620 --> 00:36:42,600

used to that's good yeah well well I

763

00:36:48,140 --> 00:36:45,630

think it's a mixed message yeah you know

764

00:36:50,660 --> 00:36:48,150
after after Kitzmiller the trial that

765

00:36:52,040 --> 00:36:50,670
found that intelligent design was also

766

00:36:54,050 --> 00:36:52,050
religious in nature and couldn't be

767

00:36:58,600 --> 00:36:54,060
taught in a science class in a public

768

00:37:00,980 --> 00:36:58,610
school we feel that the problem of

769

00:37:05,240 --> 00:37:00,990
creationism teaching creationism has

770

00:37:09,740 --> 00:37:05,250
really gone underground people know that

771

00:37:12,650 --> 00:37:09,750
it's not allowed yeah and so it's but

772

00:37:14,360 --> 00:37:12,660
it's not like they stopped teaching it

773

00:37:17,150 --> 00:37:14,370
in places where the majority of the

774

00:37:19,310 --> 00:37:17,160
community accepts it there just isn't

775

00:37:20,900 --> 00:37:19,320
anybody to blow the whistle in those

776

00:37:24,250 --> 00:37:20,910

communities I can't help thinking of

777

00:37:26,720 --> 00:37:24,260

prohibition and the speakeasy right

778

00:37:29,180 --> 00:37:26,730

education is completely decentralized in

779

00:37:31,310 --> 00:37:29,190

the United States all the way down to

780

00:37:32,870 --> 00:37:31,320

the level of almost individual schools

781

00:37:34,970 --> 00:37:32,880

and there are school districts somewhere

782

00:37:36,650 --> 00:37:34,980

between twelve and fifteen thousand of

783

00:37:38,450 --> 00:37:36,660

them depending on how you count and each

784

00:37:41,180 --> 00:37:38,460

of those school districts makes its own

785

00:37:44,750 --> 00:37:41,190

decisions about curriculum and textbooks

786

00:37:47,600 --> 00:37:44,760

and the sequence of courses in high

787

00:37:49,880 --> 00:37:47,610

school there's guidance from States some

788

00:37:50,300 --> 00:37:49,890

states are more interventionist than

789

00:37:53,120 --> 00:37:50,310

others

790

00:37:56,840 --> 00:37:53,130

but but the point is that if a teacher

791

00:37:58,190 --> 00:37:56,850

wants to teach creationism or wants to

792

00:38:00,470 --> 00:37:58,200

teach that climate change isn't

793

00:38:04,490 --> 00:38:00,480

happening or wants to skip teaching

794

00:38:08,630 --> 00:38:04,500

evolution we don't find out about it

795

00:38:12,020 --> 00:38:08,640

unless someone tells us hmm

796

00:38:16,610 --> 00:38:12,030

so survey work suggests that in the case

797

00:38:18,890 --> 00:38:16,620

of evolution about 13% of teachers these

798

00:38:21,650 --> 00:38:18,900

are public high school biology teachers

799

00:38:23,540 --> 00:38:21,660

are teaching creationism as a valid

800

00:38:25,550 --> 00:38:23,550

scientific alternative to evolution

801
00:38:28,850 --> 00:38:25,560
around 13 yeah so that's what one and

802
00:38:30,830 --> 00:38:28,860
eight that's gee I don't know whether to

803
00:38:32,630 --> 00:38:30,840
be surprised or not because you know

804
00:38:34,730 --> 00:38:32,640
it's it's the ongoing problem of course

805
00:38:35,470 --> 00:38:34,740
it would but when I really think about

806
00:38:37,849 --> 00:38:35,480
that number

807
00:38:39,740 --> 00:38:37,859
yeah that's quite that's quite a

808
00:38:43,510 --> 00:38:39,750
percentage isn't it yeah it's very high

809
00:38:48,170 --> 00:38:43,520
but here's the number that I find more

810
00:38:49,609 --> 00:38:48,180
shocking and what I mean when I say that

811
00:38:53,900 --> 00:38:49,619
we're broadening out what we're trying

812
00:38:56,029 --> 00:38:53,910
to do 60% of the US public high school

813
00:38:59,539 --> 00:38:56,039

biology teachers report that when they

814

00:39:03,650 --> 00:38:59,549

teach evolution they hedge or equivocate

815

00:39:06,799 --> 00:39:03,660

on way or another all the way from they

816

00:39:08,809 --> 00:39:06,809

just say they don't teach it yeah - they

817

00:39:10,400 --> 00:39:08,819

teach it as a debate and give the

818

00:39:13,730 --> 00:39:10,410

students the opportunity to make up

819

00:39:15,349 --> 00:39:13,740

their own minds they may say I have to

820

00:39:18,710 --> 00:39:15,359

teach this because it's in the standards

821

00:39:21,769 --> 00:39:18,720

but I don't believe it right there's a

822

00:39:25,460 --> 00:39:21,779

lot of different strategies in that 60%

823

00:39:27,680 --> 00:39:25,470

but 60% it's a really really large

824

00:39:28,970 --> 00:39:27,690

number of huge and so what we've been

825

00:39:31,309 --> 00:39:28,980

trying to do in the last three and a

826

00:39:32,900 --> 00:39:31,319

half years is figure out and I'll get to

827

00:39:37,039 --> 00:39:32,910

climate change in a moment because it's

828

00:39:40,099 --> 00:39:37,049

similar yes how do we help those

829

00:39:42,079 --> 00:39:40,109

teachers gain the confidence and the

830

00:39:44,660 --> 00:39:42,089

expertise that they need to go ahead and

831

00:39:47,059 --> 00:39:44,670

teach these topics I mean I shouldn't

832

00:39:49,460 --> 00:39:47,069

before I shouldn't be surprised but yeah

833

00:39:53,210 --> 00:39:49,470

every time I hear these stories it

834

00:39:54,829 --> 00:39:53,220

reminds me that you know we'd like to

835

00:39:56,809 --> 00:39:54,839

pat ourselves on the back every now and

836

00:39:58,730 --> 00:39:56,819

then but the job's far from Darkness

837

00:40:02,599 --> 00:39:58,740

it's far from done and it's a bigger

838

00:40:05,990 --> 00:40:02,609

problem in a way than we might have

839

00:40:10,069 --> 00:40:06,000

thought because that doubt that was

840

00:40:14,539 --> 00:40:10,079

created that framing of the issue as a

841

00:40:16,579 --> 00:40:14,549

debate between two sides means that even

842

00:40:19,760 --> 00:40:16,589

in places where the vast majority of

843

00:40:22,839 --> 00:40:19,770

people accept evolution and accept

844

00:40:26,960 --> 00:40:22,849

climate change the teachers are still

845

00:40:28,910 --> 00:40:26,970

nervous such a seductive thing isn't it

846

00:40:30,710 --> 00:40:28,920

let's be democratic about it there are

847

00:40:32,750 --> 00:40:30,720

two sides of the c-track let's let's not

848

00:40:35,210 --> 00:40:32,760

hide one of the sides let's bring it all

849

00:40:37,339 --> 00:40:35,220

out and talk about it and it's it's an

850

00:40:39,740 --> 00:40:37,349

old tactic we've seen before many times

851

00:40:44,109 --> 00:40:39,750

yeah and and there's a lot of evidence

852

00:40:46,700 --> 00:40:44,119

that done correctly acknowledging that

853

00:40:49,280 --> 00:40:46,710

some people are really uncomfortable

854

00:40:54,260 --> 00:40:49,290

with evolution acknowledging that

855

00:40:55,730 --> 00:40:54,270

students allowing them to hear that you

856

00:40:59,210 --> 00:40:55,740

know you may have a problem with this

857

00:41:01,310 --> 00:40:59,220

area and let's talk about it it can be

858

00:41:02,960 --> 00:41:01,320

really effective pretending there's no

859

00:41:05,900 --> 00:41:02,970

problem in just teaching evolution like

860

00:41:08,840 --> 00:41:05,910

there's no issue here can often lead to

861

00:41:11,150 --> 00:41:08,850

students just tuning it out and again

862

00:41:13,280 --> 00:41:11,160

survey work shows that if you ask

863

00:41:16,070 --> 00:41:13,290

evangelicals if they were taught

864

00:41:18,050 --> 00:41:16,080

evolution in school some number of them

865

00:41:22,100 --> 00:41:18,060

say yes and if you ask them if it

866

00:41:26,810 --> 00:41:22,110

changed their mind 85% of them say no so

867

00:41:29,720 --> 00:41:26,820

if it's not taught well and by well I

868

00:41:31,550 --> 00:41:29,730

mean well with respect to how do you

869

00:41:33,080 --> 00:41:31,560

teach it to people who come in with a

870

00:41:34,880 --> 00:41:33,090

lot of misconceptions about it

871

00:41:37,520 --> 00:41:34,890

you're not going to have any impact yeah

872

00:41:39,470 --> 00:41:37,530

so if ultimately our goal and this is

873

00:41:41,120 --> 00:41:39,480

sort of where our strategies are coming

874

00:41:43,490 --> 00:41:41,130

in if ultimately our goal is to have as

875

00:41:45,200 --> 00:41:43,500

many students as possible be taught

876

00:41:48,440 --> 00:41:45,210

evolution and climate change in a way

877

00:41:50,210 --> 00:41:48,450

that they understand the evidence they

878

00:41:52,040 --> 00:41:50,220

understand why the scientific

879

00:41:54,620 --> 00:41:52,050

communities have reached the conclusions

880

00:41:56,180 --> 00:41:54,630

that they've reached then we really have

881

00:41:58,940 --> 00:41:56,190

to deal with that a huge number of

882

00:42:02,780 --> 00:41:58,950

teachers who are I call it self

883

00:42:05,540 --> 00:42:02,790

censoring or or managing potential

884

00:42:07,460 --> 00:42:05,550

conflict so that they don't feel that

885

00:42:09,470 --> 00:42:07,470

they have to do that yeah that would be

886

00:42:11,420 --> 00:42:09,480

nice because I can see why some would do

887

00:42:14,390 --> 00:42:11,430

it right they don't need that hassle

888

00:42:16,970 --> 00:42:14,400

they've got papers to mark and datings

889

00:42:18,410 --> 00:42:16,980

to go to and students do to control or

890

00:42:20,480 --> 00:42:18,420

whatever and they've got a vast amount

891

00:42:21,860 --> 00:42:20,490

of material to cover you know so

892

00:42:24,680 --> 00:42:21,870

particularly in the case of climate

893

00:42:26,630 --> 00:42:24,690

change when it's not even in the

894

00:42:28,010 --> 00:42:26,640

standards yet I mean it's starting to be

895

00:42:29,890 --> 00:42:28,020

and then next generation science

896

00:42:32,240 --> 00:42:29,900

standards cover climate change very well

897

00:42:34,910 --> 00:42:32,250

it's if it's not even in the standards

898

00:42:36,040 --> 00:42:34,920

and its might get people riled up why

899

00:42:38,270 --> 00:42:36,050

would you go there

900

00:42:40,220 --> 00:42:38,280

well and it's so it's been so

901
00:42:42,020 --> 00:42:40,230
fascinating I love coming back here I

902
00:42:43,850 --> 00:42:42,030
don't care where your office is it could

903
00:42:45,980 --> 00:42:43,860
be anywhere in the world it's it's a

904
00:42:47,210 --> 00:42:45,990
wonderful thing to be in the office of

905
00:42:49,670 --> 00:42:47,220
the National Center of Science education

906
00:42:50,150 --> 00:42:49,680
how can people find out more where can

907
00:42:53,570 --> 00:42:50,160
they be

908
00:42:55,760 --> 00:42:53,580
NCS EECOM on the web we have lots of

909
00:42:56,840 --> 00:42:55,770
information there and of course if you

910
00:42:59,540 --> 00:42:56,850
become a member

911
00:43:01,610 --> 00:42:59,550
hmm you can get our newsletter every

912
00:43:02,660 --> 00:43:01,620
three months and the newsletter now

913
00:43:04,490 --> 00:43:02,670

really focuses on

914

00:43:06,650 --> 00:43:04,500

what are we doing for teachers what how

915

00:43:09,110 --> 00:43:06,660

are our booster clubs doing what kinds

916

00:43:11,050 --> 00:43:09,120

of flare-ups have we dealt with and and

917

00:43:13,550 --> 00:43:11,060

what's been the outcome of these

918

00:43:15,830 --> 00:43:13,560

legislation and across the United States

919

00:43:20,300 --> 00:43:15,840

and sometimes around the world so it the

920

00:43:22,300 --> 00:43:20,310

the newsletter is is a great way to keep

921

00:43:25,040 --> 00:43:22,310

up to date with what we're doing and

922

00:43:27,650 --> 00:43:25,050

then of course the website is very rich

923

00:43:29,180 --> 00:43:27,660

yeah well I think it's applicable for

924

00:43:31,190 --> 00:43:29,190

science teachers no matter where you are

925

00:43:33,770 --> 00:43:31,200

from Australia to the United States to

926
00:43:35,270 --> 00:43:33,780
to everywhere mm-hmm I think any science

927
00:43:38,480 --> 00:43:35,280
teacher would do well to visit your site

928
00:43:45,260 --> 00:43:38,490
once again and pleasure to be here thank

929
00:43:46,880 --> 00:43:45,270
you it's great to see you again next

930
00:43:49,160 --> 00:43:46,890
week we bring you part two of our

931
00:43:52,310 --> 00:43:49,170
conversation with Anne Reed where she

932
00:43:55,520 --> 00:43:52,320
discusses some of the challenges when it

933
00:43:56,510 --> 00:43:55,530
comes to educating the public on climate

934
00:44:13,740 --> 00:43:56,520
change

935
00:44:19,900 --> 00:44:17,680
so yes idiot hey Sal you guys guys I

936
00:44:21,910 --> 00:44:19,910
just had the most amazing experience

937
00:44:23,350 --> 00:44:21,920
what experience undress under have you

938
00:44:25,600 --> 00:44:23,360

been to the pub I told you not to hang

939

00:44:28,030 --> 00:44:25,610

out with mash you know he was blessed by

940

00:44:30,880 --> 00:44:28,040

peter Popoff no yelling I'm not talking

941

00:44:32,860 --> 00:44:30,890

about psychics it was a really SP

942

00:44:34,390 --> 00:44:32,870

experience now you have been to the pub

943

00:44:34,990 --> 00:44:34,400

either that or you've been smoking

944

00:44:37,600 --> 00:44:35,000

something

945

00:44:40,060 --> 00:44:37,610

no punters the ESB is the European

946

00:44:41,980 --> 00:44:40,070

skeptics podcast it's the most amazing

947

00:44:43,780 --> 00:44:41,990

thing you get to know so much about

948

00:44:44,350 --> 00:44:43,790

sceptics and their activities across

949

00:44:46,750 --> 00:44:44,360

Europe

950

00:44:48,340 --> 00:44:46,760

you know offends hot topics and

951
00:44:50,710 --> 00:44:48,350
interviews with lots of interesting

952
00:44:52,030 --> 00:44:50,720
people oh wow cool by the way punters

953
00:44:54,700 --> 00:44:52,040
you just come into the false dichotomy

954
00:44:57,730 --> 00:44:54,710
fallacy I guess that means I'm really

955
00:44:59,740 --> 00:44:57,740
wrong yep and you can even learn about

956
00:45:02,230 --> 00:44:59,750
those fallacies in the show and hear

957
00:45:04,510 --> 00:45:02,240
about people spreading silly ideas you

958
00:45:07,510 --> 00:45:04,520
should really check it out it's the ESP

959
00:45:10,180 --> 00:45:07,520
the European sceptics podcast it's on

960
00:45:12,730 --> 00:45:10,190
every week all right so where can I get

961
00:45:15,190 --> 00:45:12,740
this is the experience it sounds good

962
00:45:18,250 --> 00:45:15,200
you can go online at the ESP da to you

963
00:45:21,280 --> 00:45:18,260

follow it on twitter at es podcast

964

00:45:23,470 --> 00:45:21,290

underscore EU or like the podcast on

965

00:45:26,500 --> 00:45:23,480

Facebook oh and you can also contact the

966

00:45:30,310 --> 00:45:26,510

show by sending them an email to info at

967

00:45:32,350 --> 00:45:30,320

the ESPE you and if you want to

968

00:45:35,080 --> 00:45:32,360

subscribe do a quick search for the

969

00:45:41,110 --> 00:45:35,090

European skeptic podcast on soundcloud

970

00:45:45,810 --> 00:45:41,120

iTunes or stitcher I don't know why you

971

00:45:58,530 --> 00:45:56,120

[Music]

972

00:46:01,260 --> 00:45:58,540

as mentioned at the top of the show I

973

00:46:03,720 --> 00:46:01,270

have been enjoying nibbling on

974

00:46:09,620 --> 00:46:03,730

Einstein's brain the good the bad the

975

00:46:16,560 --> 00:46:14,520

awakened a press calm or where I tend to

976

00:46:18,900 --> 00:46:16,570

buy these things I got this copy I'm

977

00:46:21,470 --> 00:46:18,910

holding here from the Book Depository

978

00:46:23,340 --> 00:46:21,480

but I'll put a link in the show notes as

979

00:46:26,010 --> 00:46:23,350

written on the back of the book

980

00:46:28,290 --> 00:46:26,020

do you know faulty or phony science can

981

00:46:30,630 --> 00:46:28,300

creep into your life in a lot of

982

00:46:33,030 --> 00:46:30,640

different ways nibbling on einstein's

983

00:46:35,340 --> 00:46:33,040

brain will help you become a science

984

00:46:38,280 --> 00:46:35,350

watchdog by suggesting winning

985

00:46:39,930 --> 00:46:38,290

strategies and fun ways to sort the good

986

00:46:43,620 --> 00:46:39,940

from the bad

987

00:46:45,090 --> 00:46:43,630

and among other recommendations written

988

00:46:49,110 --> 00:46:45,100

on the back of the book we have one from

989

00:46:52,050 --> 00:46:49,120

Ben Radford from skeptical inquiry and

990

00:46:55,020 --> 00:46:52,060

the podcast you hear promoted on the

991

00:46:58,050 --> 00:46:55,030

skeptic CERN squaring the strange and

992

00:47:00,510 --> 00:46:58,060

Ben says the bar for children's and

993

00:47:02,510 --> 00:47:00,520

young adult books dealing with critical

994

00:47:05,430 --> 00:47:02,520

thinking has been dramatically raised

995

00:47:07,680 --> 00:47:05,440

achieves a rare feat for science books

996

00:47:10,260 --> 00:47:07,690

and you know what Ben and everybody I

997

00:47:12,480 --> 00:47:10,270

think I have to agree I have been really

998

00:47:15,990 --> 00:47:12,490

enjoying nibbling on iron Stein's brain

999

00:47:18,870 --> 00:47:16,000

it covers in a in a very matter-of-fact

1000

00:47:21,510 --> 00:47:18,880

but very easy to digest way basic

1001
00:47:25,070 --> 00:47:21,520
methods of science including testing the

1002
00:47:27,780 --> 00:47:25,080
theory that science is revised these

1003
00:47:30,210 --> 00:47:27,790
replication you need to challenge it to

1004
00:47:32,190 --> 00:47:30,220
question the assumptions it talks about

1005
00:47:34,730 --> 00:47:32,200
good science bad science it gives you a

1006
00:47:38,250 --> 00:47:34,740
checklist to look out for good science

1007
00:47:39,840 --> 00:47:38,260
lots of examples from history of the the

1008
00:47:40,260 --> 00:47:39,850
method of science and how it's being

1009
00:47:42,330 --> 00:47:40,270
used

1010
00:47:45,690 --> 00:47:42,340
gives links and references to things

1011
00:47:49,580 --> 00:47:45,700
like quack watch when discussing medical

1012
00:47:54,240 --> 00:47:49,590
science and indeed reading from page 28

1013
00:47:57,900 --> 00:47:54,250

mind the medical mouse sick worried

1014

00:47:58,540 --> 00:47:57,910

looking for a cure a few clicks of a

1015

00:48:01,480 --> 00:47:58,550

mouse

1016

00:48:04,540 --> 00:48:01,490

send you're bound to find an answer well

1017

00:48:06,850 --> 00:48:04,550

you're sure to find advice at any rate

1018

00:48:09,220 --> 00:48:06,860

what it's worth there's another matter

1019

00:48:12,010 --> 00:48:09,230

hundreds of thousands of medical

1020

00:48:14,260 --> 00:48:12,020

internet sites offer a huge range of

1021

00:48:17,800 --> 00:48:14,270

information on illnesses therapies

1022

00:48:21,250 --> 00:48:17,810

medicines and more but many sites are

1023

00:48:23,380 --> 00:48:21,260

misleading or plain dishonest anybody

1024

00:48:26,530 --> 00:48:23,390

can post information on the Internet and

1025

00:48:29,500 --> 00:48:26,540

claim it's just about anything there are

1026

00:48:32,230 --> 00:48:29,510

a few checks sites that are full of

1027

00:48:36,070 --> 00:48:32,240

dubious information can look and sound

1028

00:48:39,310 --> 00:48:36,080

highly scientific so it can be tricky to

1029

00:48:42,130 --> 00:48:39,320

tell the good ones from the bad at the

1030

00:48:45,100 --> 00:48:42,140

very least see if a site offers

1031

00:48:48,220 --> 00:48:45,110

up-to-date support by scientific

1032

00:48:50,250 --> 00:48:48,230

research find out who set up the site

1033

00:48:52,690 --> 00:48:50,260

and who is providing the information

1034

00:48:57,040 --> 00:48:52,700

check its reputation with health

1035

00:48:59,380 --> 00:48:57,050

watchdogs sites such as quack watch the

1036

00:49:01,450 --> 00:48:59,390

book also has little segments called now

1037

00:49:04,120 --> 00:49:01,460

it's your turn where it challenges you

1038

00:49:06,220 --> 00:49:04,130

to look up things or do things or think

1039

00:49:08,890 --> 00:49:06,230

about things what's this a baloney

1040

00:49:10,990 --> 00:49:08,900

Buster checklist as part of the book

1041

00:49:13,090 --> 00:49:11,000

it's complete with a really fun

1042

00:49:14,820 --> 00:49:13,100

illustrations that would appeal to kids

1043

00:49:17,110 --> 00:49:14,830

of course there's a bit here about

1044

00:49:22,500 --> 00:49:17,120

horoscopes which is quite interesting

1045

00:49:25,140 --> 00:49:22,510

winning strategies for science so

1046

00:49:27,910 --> 00:49:25,150

nibbling on Einstein's brain I've been

1047

00:49:29,710 --> 00:49:27,920

really enjoying reading it on the train

1048

00:49:33,760 --> 00:49:29,720

actually it's it's been a fabulous book

1049

00:49:35,410 --> 00:49:33,770

I can sincerely recommend it links in

1050

00:49:38,440 --> 00:49:35,420

this week's show notes if you've got

1051

00:49:40,300 --> 00:49:38,450

younger kids at home maybe a elementary

1052

00:49:42,340 --> 00:49:40,310

primary school age and up right through

1053

00:49:44,920 --> 00:49:42,350

high school I would suggest right

1054

00:49:48,220 --> 00:49:44,930

through high school and even beyond it's

1055

00:49:49,930 --> 00:49:48,230

an excellent refresher on the method of

1056

00:49:53,050 --> 00:49:49,940

science for those who already familiar

1057

00:49:54,730 --> 00:49:53,060

with it but for those younger people out

1058

00:49:56,950 --> 00:49:54,740

there who are not particularly familiar

1059

00:49:59,080 --> 00:49:56,960

with the method of science how it works

1060

00:50:01,360 --> 00:49:59,090

why it works why are things are done in

1061

00:50:04,030 --> 00:50:01,370

a certain way then I think it's a

1062

00:50:06,770 --> 00:50:04,040

wonderful book nibbling on iron Stein's

1063

00:50:22,259 --> 00:50:06,780

brain link in the show notes

1064

00:50:28,239 --> 00:50:25,089

the skeptic magazine the journal from

1065

00:50:30,460 --> 00:50:28,249

Australian skeptics subscribe online to

1066

00:50:35,769 --> 00:50:30,470

the world's second oldest skeptical

1067

00:50:38,950 --> 00:50:35,779

magazine visit WWF X comma u and click

1068

00:50:43,359 --> 00:50:38,960

the publication's link you can also find

1069

00:50:46,539 --> 00:50:43,369

there over 30 years of back issues free

1070

00:50:54,010 --> 00:50:46,549

to download the skeptic magazine from

1071

00:50:54,020 --> 00:51:04,370

[Music]

1072

00:51:08,300 --> 00:51:06,810

thank you for listening to the skeptic

1073

00:51:11,610 --> 00:51:08,310

zone now I'm a little bit disappointed

1074

00:51:15,960 --> 00:51:11,620

because I was to bring you a live report

1075

00:51:19,320 --> 00:51:15,970

from the very recent stranger things

1076

00:51:21,330 --> 00:51:19,330

down under group on Facebook trip to ruk

1077

00:51:25,220 --> 00:51:21,340

wood cemetery the largest cemetery here

1078

00:51:28,410 --> 00:51:25,230

in Sydney and nighttime tour and

1079

00:51:31,800 --> 00:51:28,420

unfortunately on the day on the very day

1080

00:51:34,590 --> 00:51:31,810

I was supposed to go some late work came

1081

00:51:38,580 --> 00:51:34,600

my way which I couldn't refuse and that

1082

00:51:40,050 --> 00:51:38,590

late work went went overtime but that's

1083

00:51:41,730 --> 00:51:40,060

okay these things happen but I missed

1084

00:51:43,920 --> 00:51:41,740

out on the tour so stranger things done

1085

00:51:46,500 --> 00:51:43,930

under group I'm very sorry and I'm very

1086

00:51:48,660 --> 00:51:46,510

sorry I couldn't bring the skeptic zone

1087

00:51:51,870 --> 00:51:48,670

audience a live report from a spooky

1088

00:51:53,430 --> 00:51:51,880

walk around the Rookwood cemetery but I

1089

00:51:55,230 --> 00:51:53,440

look forward to the next stranger things

1090

00:51:57,480 --> 00:51:55,240

down under event whatever that may be

1091

00:52:01,110 --> 00:51:57,490

thank you to highly Robertson for that

1092

00:52:03,780 --> 00:52:01,120

wonderful on the scene report from the

1093

00:52:05,370 --> 00:52:03,790

the star stuff wow I wish I could have

1094

00:52:08,310 --> 00:52:05,380

been there let's sound like a really

1095

00:52:10,290 --> 00:52:08,320

fabulous couple of days and I hope

1096

00:52:12,330 --> 00:52:10,300

Heidi's right I hope that there's

1097

00:52:14,820 --> 00:52:12,340

another one of those scheduled for the

1098

00:52:17,370 --> 00:52:14,830

not-too-distant future thank you for

1099

00:52:20,280 --> 00:52:17,380

support the skeptic zone each week at

1100

00:52:24,000 --> 00:52:20,290

skeptic zone TV via PayPal patreon much

1101
00:52:25,920 --> 00:52:24,010
appreciated vital necessary vital thank

1102
00:52:28,020 --> 00:52:25,930
you very much and thank you to those

1103
00:52:29,960 --> 00:52:28,030
people who also support Maynard our

1104
00:52:33,630 --> 00:52:29,970
wonderful zany crazy

1105
00:52:36,570 --> 00:52:33,640
Maynard our reporter and he's podcast

1106
00:52:39,210 --> 00:52:36,580
bunga bunga over at Maynard com not a

1107
00:52:41,970 --> 00:52:39,220
you with Tim Ferguson from the Doug

1108
00:52:44,340 --> 00:52:41,980
Anthony also is making wonderful fresh

1109
00:52:44,880 --> 00:52:44,350
Australian comedy award-winning of

1110
00:52:47,400 --> 00:52:44,890
course

1111
00:52:51,180 --> 00:52:47,410
bunga bunga is an award-winning comedy

1112
00:52:54,570 --> 00:52:51,190
podcast and I know Maynard works very

1113
00:52:57,480 --> 00:52:54,580

hard doing all those edits he does so

1114

00:52:59,220 --> 00:52:57,490

many edits and cuts and musical stings

1115

00:53:02,670 --> 00:52:59,230

and grabs and bits and pieces to make

1116

00:53:06,380 --> 00:53:02,680

bunga bunga so funny bunga bunga it's at

1117

00:53:08,970 --> 00:53:06,390

Maynard calm not a you if you're like

1118

00:53:10,410 --> 00:53:08,980

fresh Australian comedy that's where he

1119

00:53:11,850 --> 00:53:10,420

should head now I don't know if

1120

00:53:13,620 --> 00:53:11,860

listeners have heard a difference but

1121

00:53:14,710 --> 00:53:13,630

this week the voiceovers them when

1122

00:53:18,730 --> 00:53:14,720

you're hearing now

1123

00:53:21,430 --> 00:53:18,740

are done if I are in or through or with

1124

00:53:23,310 --> 00:53:21,440

my new little skeptic zone recording

1125

00:53:26,589 --> 00:53:23,320

booth I knocked up myself

1126

00:53:31,630 --> 00:53:26,599

from materials a cheap box from Ikea

1127

00:53:34,690 --> 00:53:31,640

sort of a collapsible box it's about 30

1128

00:53:37,890 --> 00:53:34,700

40 centimeters by 50 centimeters or so

1129

00:53:42,790 --> 00:53:37,900

something like that and some audio

1130

00:53:46,330 --> 00:53:42,800

acoustic foam you can hear there with a

1131

00:53:48,130 --> 00:53:46,340

microphone placed inside I was inspired

1132

00:53:52,500 --> 00:53:48,140

by various huge shoe clips of people

1133

00:53:54,760 --> 00:53:52,510

using homemade little recording booths I

1134

00:53:56,770 --> 00:53:54,770

hope it makes a difference

1135

00:53:58,630 --> 00:53:56,780

coming up on next week's show amongst

1136

00:54:01,030 --> 00:53:58,640

other things an interview with Bob

1137

00:54:03,820 --> 00:54:01,040

novella from the skeptics guide to the

1138

00:54:05,440 --> 00:54:03,830

universe but for this week from what

1139

00:54:07,390 --> 00:54:05,450

time is it now something like almost

1140

00:54:09,670 --> 00:54:07,400

three o'clock in the morning this is

1141

00:54:16,030 --> 00:54:09,680

Richard Saunders signing off from Sydney

1142

00:54:18,640 --> 00:54:16,040

Australia you've been listening to the

1143

00:54:22,480 --> 00:54:18,650

skeptic zone podcast visit our website

1144

00:54:25,780 --> 00:54:22,490

at WWF Tech's on TV for contacts an

1145

00:54:28,930 --> 00:54:25,790

archive of all episodes since 2008 and

1146

00:54:30,970 --> 00:54:28,940

our online store please support the

1147

00:54:34,329 --> 00:54:30,980

skeptic zone by following us on Twitter

1148

00:54:37,839 --> 00:54:34,339

at skeptic zone liking us on Facebook

1149

00:54:39,310 --> 00:54:37,849

and leaving a review on iTunes you can

1150

00:54:43,180 --> 00:54:39,320

also show your support by subscribing

1151

00:54:46,210 --> 00:54:43,190

via PayPal or as little as 99 cents a

1152

00:54:48,250 --> 00:54:46,220

week the skeptic zone is an independent

1153

00:54:50,320 --> 00:54:48,260

production the views and opinions

1154

00:54:52,390 --> 00:54:50,330

expressed on the skeptic zone and not