PodMag S2_6 24 Nov

The PodMag

Karen Foley:
Hi and welcome to the PodMag. I'm Karen Foley.

Dave Middleton:
And I'm Dave Middleton. Hey we've got to welcome a new listener.

Karen Foley:
Oh absolutely, yes. If you haven't heard the PodMag before welcome. But if you are new to the PodMag this is our audio download each week for the Faculty of Social Sciences with news, views, current affairs.

Dave Middleton:
But we've got lots going on haven't we? And we're going to talk about the conference news in just a moment but, ah I am so excited about some of the news that we've got to share. Shall we have news jingle?

Karen Foley:
Yes, lets.

Dave Middleton:
So come on then Karen. First piece of news.

Karen Foley:
The first piece of news is ...

Dave Middleton:
A piece of news about two of our colleagues who are based in Cambridge and that's Donna and Katie Smith. They've just published a paper in the European Journal of Open and Distance Learning called The Case for Passive Learning. The silent community of online learners. I mean it sounds like a really interesting case study.

This is about their work, looking at forums and the way in which many students actually don't want to contribute to the forums in terms of typing but they do actually learn an awful lot just by being there.

Karen Foley:
Now this is a very interesting point actually because during this week's Activate session we were talking to Ben Tamplin. Hello Ben. About his use of forums and he was saying that, you know, initially he didn't really like using forums and now one of his modules has these activities and he's finding that he's changing his mind about them.

And so what we did was we challenged him to write a blog about it. And we're going to be doing a lot of blogging. So we'll update you on that to get involved. So let us know if you're interested. Get in touch by email or visit the Student Connections website to find out more.

Dave Middleton:
The website is now up and running. You get all the links there. Go to that website which is.

Karen Foley:
Connections.kmi.open.ac.uk

Dave Middleton:
Now just repeat after me. The train arriving at platform 6.

Karen Foley:
Dave, you should record this so you can just drop it in like a jingle. And we can have like connections.kmi.open.ac.uk with some really good music.

Dave Middleton:
Well let's do a jingle now.

Karen Foley:
OK.

Dave Middleton:
After 3.

Karen Foley:
OK.

Dave Middleton:
One, two, three.

Dave Middleton and Karen Foley:
Connections@open

Karen Foley:
And the Dean did say none singing.

Dave Middleton:
Oh, right OK.

OK let's have some conference news. What's happening on the conference? What's the big story Karen?

Karen Foley:
Yeah, no we're very, very busy planning the conference and next week we're going to be putting out a call for expression of interests for all of our academics and students as well. This is your time, if you want to get involved let us know. Just drop us an email, PodMag@open.ac.uk and let us know how you'd like to get involved. If you're keen to get involved do let us know.

Dave Middleton:
Hold on Karen we're going to come back to the conference. Look who's walking past.

Karen Foley:
They've been on the telly. I saw them.

Dave Middleton:
They've been on everything. They've been on radio, TV. It's only David Rothery.

Karen Foley:
Oh my goodness.

Dave Middleton:
Hold on, he's got someone else with him. Let's get them in. I'm pretty sure that's one of the people that's just come back from ...

Karen Foley:
That's Axel. He's been in Germany.

Dave Middleton:
He's been to Mission Control. We must talk to them.

Karen Foley:
Yeah.

Dave Middleton:
Let's get them in now.

Karen Foley:
OK.

Dave Middleton:
OK. Well we've been joined by some really very, very special guests. Big names now in the OU and worldwide and actually beyond worldwide, universe-wide. So a very big

welcome to David Rothery who is Professor of Planetary Geosciences and you would have seen him if you were watching the live stream.

Hi David.

David Rothery:
Hi David.

Dave Middleton:
Nice to see you again. And also we've been joined by Axel Hagermann who is a Senior Lecturer in the Department of Physical Sciences and has just come back from Mission Control. Is that right?

Axel Hagermann:
That is correct, yes.

Dave Middleton:
Fabulous. Well we're going to ask you about that first. I mean you were there when it was all really kicking off and everything was happening. What were your feelings?

Axel Hagermann:
I wasn't really there because I wasn't on the comet really. So I was in Cologne at the Lander Control Centre. And the feeling was, well it was very, very tense. And the biggest problem was we didn't really get data in real time because most of the time we had to wait for the radio link.

Dave Middleton:
OK. So how fast was the data arriving?

Axel Hagermann:
We were talking roughly like something between half an hour, an hour because everything that you do with the Lander has to be up linked to the Rosette Space Craft. Then it has to be sent down to the Lander. And obviously the space craft and the Lander were not always in contact. So it was, you know, quite a riveting wait actually.

Dave Middleton:
So a whole half an hour but you've been working on this for eleven years, half an hour's a blink of an eye isn't it?

Axel Hagermann:
Not really, no actually. When you're waiting for data you are waiting for the, you know, the fruit of your hard labour for so many years what you really want is, you know, you want sort of an instant acknowledgement that actually, you know, haven't made a complete mess out of it. And it was quite difficult actually waiting for so long.

Karen Foley:
And what about you David because you were in Milton Keynes and obviously there was a very different environment going on. What was it like waiting for that data?

David Rothery:
I didn't have the same emotional investment in this mission. I'm not on the Rosetta or the Philae team at all. But I was one of the people on the live stream and if people were watching that I talked about how exciting I thought the images of the comet were. And we kept some interest going, I hope, as Philae was descending to the surface. And when we had confirmation from Mission Control of a landing we were all jubilant.

We signed off the programme shortly after that saying, you know, get on Twitter, get on the Internet later to look at the pictures. And we all thought we'd got the probe safely on the surface and I think Axel's was one of the instruments which knew fairly quickly that in fact it had bounced off the surface and was still flying through space for a couple of hours, didn't you Axel?

Axel Hagermann:
Yes, yes. I need to say a bit more about the instrument that I'm involved in. It is led by the Berlin Institute of Space Research so it's effectively a German instrument that's sitting there. And what we saw that when we got the first packets of data they were coming in, in little sort of, you know, drips. So you're getting a packet of data, a packet of data there. And what happened after the landing was of the landing in quotes was that we saw very quickly that things hadn't calmed down really. We could see that something that was still moving and that was our indication that something had not quite worked as planned.

Karen Foley:
Because it took quite a while, it went a kilometre didn't it away from the comet and that must have been very nerve racking.

Axel Hagermann:
Yes, yes. The first bounce was very, very long and what we could see was that there was this wiggling in the data, and we went, ah something has gone wrong here. And then it turned out. We got the data from the engineer, he said to us, oh the harpoons haven't fired. I don't know how much listeners will know about the design of the space craft.

Because gravity is so low when you try to land on this cometary nucleus you might also have gas drag pushing you back as well. So you've got low gravity. Potentially you've got gas pushing you away. So you're trying to hold on to this comet by, well first of all firing two harpoons in to the surface.

Now what we saw was basically neither of the harpoons had fired nor was the thruster system operational. And when we heard that the harpoon hadn't fired we went, oh dear something's gone very, very wrong here. So we were very, very relieved at the end when we found out the thing had actually landed and come to rest.

Dave Middleton:
That must have been an absolutely terrible moment when you thought that you were going to lose the whole thing.

Axel Hagermann:
It was. When we saw that basically this thing has gone back in to space we were really, really shocked. We went how could this happen.

David Rothery:
Because where it actually bounced first of all, when it first hit the comet it was a bulls eye. It was exactly where they're aiming for, it would have been a great place if the probe had stayed there. But where it ended up after bouncing was underneath a low cliff, not getting very much sunlight. And that's been a problem.

It had 60 hours of battery life and I understand almost every experiment worked pretty well. It's done its primary mission so we should be pretty pleased with that.

Karen Foley:
There's a lot of data. And that maspectrometer was one of the instruments that's had the most Press. But Axel you've been working on something else haven't you? Could you tell us a bit about that?

Axel Hagermann:
Well the instrument that I worked on, as I said, it's led by the Institute for Space Research in Berlin and their main focus is not on maspectrometers, it is more about the thermal environment of a cometary nucleus. Because the two are very, very ... they know intimately linked. Because we assume that comets that fairly pristine. They are the sort of original building blocks of the solar system and they have stayed in a rather cold environment for quite a long time.

So when we take a sample of the composition of a cometary nucleus what we also need to know is what the temperature is like, so what the thermal environment is like. And that's what this instrument was about to investigate.

It's an infrared, you know, thermometer like the ones you can buy in DIY stores and a proper 00:09:05 thermometer sort of like a long stick with several thermal 00:09:08 centres. And it was designed to measure temperatures which is what it has done.

Dave Middleton:

So we could make one ourselves at home. Get a rocket, put a thermometer on and send it up.

Axel Hagermann:
Go ahead, go ahead. There's nothing stopping you.

Dave Middleton:
We recommend it to be people who are listening at home. Well thank you so much both of you for giving up your time. I know you have been really busy and you've only just got back from Germany. You must be absolutely shattered.

Karen Foley:
We hope you'll come back and tell us a bit about when you've got that data and what it all means?

Axel Hagermann:
I hope so too, yes.

Dave Middleton:
It is exciting. It is exciting. Fabulous, thanks so much for coming in today.

Karen Foley:
Thank you very much.

Dave Middleton:
Do you know one thing that I'm a bit confused about with that?

Karen Foley:
What?

Dave Middleton:
Well they were talking about these harpoons.

Karen Foley:
I know.

Dave Middleton:
Now honestly I think actually landing on a comet with a space ship is very, very impressive. But to go up there and look for whales.

Karen Foley:
I know. When they don't even know if there's water and I thought that was quite a big point.

Dave Middleton:
I'm really confused by why there were doing that.

Karen Foley:
I know. I'm sure that had a rationale.

Dave Middleton:
I'm sure. I don't know whether they did. They didn't seem to.

Karen Foley:
Oh, I don't know. From what I know these people in science they do tend to think things through.

Dave Middleton:
Do they?

Karen Foley:
Unlike, you know.

Dave Middleton:
Us.

Karen Foley:
Yeah.

Dave Middleton:
Shall we go back and have a bit more conferencey news.

Karen Foley:
Absolutely.

Dave Middleton:
Road shows Karen, road shows. That's what we need to talk about.

Karen Foley:
We do. We're planning some road shows. The first of them is in Milton Keynes at Walton Hall at our very own Open University and that is on 2nd December, so coming up quite soon.

Now these are going to be really fun and again it's your opportunity to get involved in the conference, meet Dave and I, meet some of the academics at the Open University. It's completely free but places are limited so to book your space email us: PodMag@open.ac.uk with road show on the title.

If you want a road show round your area and you feel you can help us promote it and get students on board do email us and let us know. But at the minute we're planning some events before the conference and a lot after because Student Connections is not just about a conference. It's about connecting students within the Open University throughout your studying journey.

Dave Middleton:
OK now Karen I'm going to just change the subject slightly for a few seconds. Now I did say to you that I had a very special job for you.

Karen Foley:
Yes.

Dave Middleton:
OK. Here's a fiver.

Karen Foley:
Right.

Dave Middleton:
OK. This is a test of your research skills.

Karen Foley:
Right.

Dave Middleton:
I want you to go across to the canteen.

Karen Foley:
Yeah.

Dave Middleton:
And I want you to research whether they sell anything called coffee and I'd like you to bring me back a cup. There you go. Meanwhile I'm going to phone Joe Smith. Right, I'll see if I can get Joe on the phone.

OK, hi Joe. Are you there?

Joe Smith:
Hi Dave. How are you?

Dave Middleton:

I'm very well thank you. Well thanks very much for joining us this morning. I've just been talking to people from the Rosetta Project so I'm really excited at the moment about things that are going on.

But I want to talk to you about something equally exciting which is this week's Friday Thinker.

Joe Smith:
Thanks Dave. Yes I suspect I'll bring you down to Earth with some fairly direct conversation about energy and how energy plays in our lives.

Dave Middleton:
So what will the question actually be then? And I love that pun by the way, I did notice.

Joe Smith:
Yeah. I can't stop it I'm afraid Dave. The question I'm putting is how can we change the way live with energy to reduce the risks of climate change? And I think pretty well everyone will have an opinion one way or another on that topic.

Dave Middleton:
Oh absolutely yeah. Obviously people are going to have strong opinions on some of these things and I think most people are in favour of reducing greenhouse emissions and I'm just a little bit of a loss how they stop using the car and things like that. So I'm sure there are a lot of students who will be very interested to hear what you have to say as well.

Joe Smith:
Yeah. Well I mean part of the point of a Friday Thinker slot is that the Facebook conversation is that it's not an opportunity for me to say what I think. It's an opportunity for lots of people to get involved in a conversation about it. And I guess I want to kick off a conversation, I focused on energy. I want to kick off a conversation about how we can think in a slightly more open, even sideways way, about how humanity lives with energy.

And my thinking about this is coming out of a research project that I'm leading with twelve colleagues from across the country. Instead of taking a more technical approach we're stitching together all the insights from our different disciplines to try to open up the public imagination about how we've lived with energy in the past and the present. And how we might live with it in the future.

Dave Middleton:
That sounds absolutely fascinating. And what's that project called?

Joe Smith:

It's called Stories of Change.

Dave Middleton:
And if people want to know about it where can they find out?

Joe Smith:
If people Google for Stories of Change they will find that web address.

Dave Middleton:
Brilliant. Well it's been fabulous talking to you Joe. Thanks very much for joining us. I hope you have a very successful Friday Thinker. It sounds as though it's going to be a good one.

Joe Smith:
Looking forward to it. Thanks, Dave. Bye.

Dave Middleton:
OK thanks a lot Joe.

Ah Karen you're back.

Karen Foley:
Yeah, yeah Dave.

Dave Middleton:
With my coffee.

Karen Foley:
Yeah, actually it's a ...

Dave Middleton:
What the? What is this?

Karen Foley:
It's a new thing they're doing. It's called, that one is calming chamomile.

Dave Middleton:
Calming chamomile.

Karen Foley:
Yeah. I thought it would be really nice.

Dave Middleton:
What have you got?

Karen Foley:
Well, I've got coffee.

Dave Middleton:
But I asked for coffee.

Karen Foley:
I know but this is calming and they said you'd really like it.

Dave Middleton:
Let me just ... I mean we did record this didn't we?

Karen Foley:
Yeah.

Dave Middleton:
We could go back and look at the recording and we'll see ...

Karen Foley:
Well we could Dave, but I was being nice and you said go and get me something and I was just using my initiative like you've told me to do.

Dave Middleton:
I'm not sure that's a good thing. Plus I think we've come to the end of this PodMag.

Karen Foley:
OK. Fair enough.

Dave Middleton:
Well we'd better say goodbye to everyone.

Karen Foley:
OK. Right that's all we've got time for so have a great week and we'll catch you next Monday.

Dave Middleton:
See you next week.

The PodMag