FUTURES: European Researchers' Night 2018 Work Package 2: Activities during the NIGHT report

Authors:

Rob Cooper, Public Engagement Officer, University of Bath Ellie Cripps, FUTURES Project Coordinator and Public Engagement Associate, University of Bristol Suzanne Wright, FUTURES Events Coordinator, University of Bristol

Management of activities

Activities were coordinated by the University of Bristol (UoB) and developed in collaboration with the University of Bath (UoBa) and Bath Spa University (BSU). A FUTURES Intern based at UoB was recruited to support the delivery of activities. Regular steering group meetings took place to develop and manage the activities as well as regular communication with venues hosting activities.

Researchers were recruited through initially targeting Marie Skłodowska-Curie Fellows (MSCA Fellows) at UoB, UoBa, and Cardiff University (CU). MSCA Fellows at the University of Exeter were also approached but were unable to take part this year. Information sessions to reach further researchers at all institutions took place in Bristol, Bath and Cardiff. In total, 229 researchers took part in FUTURES 2018: 153 from UoB, 54 from UoBa, 12 from CU and 10 from BSU. Of these, 35 were MSCA Fellows who were supported to take part in all activities and particularly to develop plans for the EU Corners in Bristol and Bath. To reach researchers from all faculties and career stages, FUTURES was promoted widely at each university including faculty e-newsletters, internal staff bulletins and researcher networks. Ten bespoke training sessions and tailored advice supported researchers to take part in each activity.

Locations and venues

All the venues were chosen to reach a broad demographic and were predominantly based in city centre locations to enable high footfall. In Bristol, the flagship venue was <u>We The Curious</u>, a science centre and member of the ECSITE network. Other venues included <u>The Island</u> (an arts and events space with exhibition spaces), <u>Central Library</u> and <u>The New Rooms</u>, John Wesley's Chapel (café space and museum). All these venues are located within the city centre. In Bath, a key venue was <u>The Edge</u> (arts centre at UoBa). Other venues included the <u>Holburne Museum</u>, <u>Burdall's Yard</u> (BSU's music and performance venue), <u>BRLSI</u> (Bath Royal Literary and Scientific Institution), and <u>44AD artspace</u>. Other activities took place out on the streets of Bath for the walking tour and on trains in the local area. Online activities also took place to reach a wider audience.

Types of activities

A diverse programme of activities was planned to engage audiences of all ages. Activities included: a research fair with hands-on activities and live research experiments, interactive EU Corners, demonstrations, workshops, discussions and talks, art installations and exhibitions, research–related films, conversations over tea and cake, storytelling, stand-up comedy, illustration, engagement activities on trains and a guided walk.

Number of attendees

In total, 5,257 people engaged with FUTURES activities with 3351 people engaging with online vlogging. In Bristol, 1,425 visitors attended FUTURES activities. At We The Curious, 1,276 visitors (schools, families and adults) attended the *Research Fair, Researchers Tales* and *Public Talks*. The *Inventions and Imaginings* exhibition and workshop at The Island attracted 66 visitors. *Tea with a Researcher* at The New Rooms welcomed 23 older people for one to one conversations over tea and

cake. Finally, researchers engaged 60 adults and families at *Researchers on Loan* at Bristol's Central Library.

UoBa and BSU coordinated activities in Bath and online that reached 3831 people. The cultural venues the Holburne Museum and The Edge welcomed 120 visitors for science, art and comedy at *Up Late – Women and Creativity* and *Visions of Science*. 40 people went *Walking with Scientists* to explore Bath on foot. *Researchers on a Train* saw 210 visitors interact with researchers on the Severn Beach train line. Lectures at BRLSI and Burdall's Yard were attended by 63 visitors. A further 3351 people engaged with online vlogs created as part of the *Day in the Life* activity. To reach larger audiences in Bath for FUTURES 2019, UoBa will host more activities in Bath's city centre.

Programme of activities

Bristol:

Research Fair (schools), We The Curious - School children (9.30am - 2.30pm)

The Research Fair for local schools (9-14 year olds) took place over two sessions (9.45am-11.45am and 12.30pm-2.30pm) with 83 researchers engaging 390 children and teachers. Research topics presented included ultrasonic levitation, helicopters, robotics and blood sucking insects. School children were able to meet researchers and explore the impact of cutting-edge research across science, engineering, social sciences and humanities through hands-on activities. The children could also follow the 'Big Ideas' trail which asked for their ideas on big questions including how technology might improve healthcare or how robotics may shape working lives in the future. Schools from low socio-economic backgrounds and in areas with low uptake of higher education were prioritised. More than 320 additional student spaces were requested beyond the capacity of the event. These schools were signposted to the public event so the children could still attend with their families.





Figure 1: School children at the Research Fair ${}^{\odot}$ Bhagesh Sachania Photography and ${}^{\odot}$ Amy Walsh

Research Fair, We The Curious - Adults and families (6.30pm-10pm)

In the evening, FUTURES "took over" We The Curious. Adults and families could visit for free (normally We The Curious costs £15.95 for an adult and £10.50 for a child) and explore the venue's interactive gallery spaces across two floors. Visitors could also attend the Research Fair, hear stories from researchers at *Researchers Tales* or attend *Public Talks*. Some activities from the Research Fair were designed to be embedded in permanent We The Curious exhibits. This included the <u>SPHERE</u> project which created a "high-tech house" to explore how technology can be used in the home to monitor healthcare. The evening was attended by a real diversity of audiences including local families, young adults attending with friends and older adults.



Figure 2: Families and adults at the Research Fair © Bhagesh Sachania Photography and © Amy Walsh

Researchers' Tales¹, We The Curious - Adults and Families (7.15pm – 9.35pm)

A group of 23 researchers (predominantly MSCA Fellows) worked with professional storyteller <u>Clare</u> <u>Murphy</u> to develop skills in storytelling to share their stories with the public. Clare ran a two-day training course at the University of Bristol to prepare the researchers. The stories aimed to explain their research and their lives as researchers to help break stereotypes. The researchers performed their short stories in a studio space which created an intimate atmosphere for visitors to discover the people behind the research.

¹ This event was referred to as "Scientists' Tales" in the proposal but was renamed so MSCA Fellows from nonscience subjects could take part.



Figure 3: MSCA Fellows telling stories about their research © Hannah Cowell and © Bhagesh Sachania Photography

Science Busks, We The Curious - School children and general audiences (9.30am – 10.00pm)

Interactive, busk-style activities were incorporated into the *Research Fair*, with researchers leading mobile activities such as making balloon helicopters. To expand the reach of 2019 activities, similar busking activities are planned to take place outside We The Curious, where there is a Square with high footfall.

Public Talks, We The Curious - Adults (6.30pm – 9.40pm)

Five *Public Talks* featuring engaging and high-profile speakers which aimed to show the diversity of research taking place across the South West. The talks were:

- Should you be scared of robots who claim to care? Professor James Ladyman
- What is breathlessness? Dr Havi Carel
- Sea Soup why should you care about plankton? Russell Arnott
- Global luxuries in the Ancient Mediterranean World Dr Tamar Hodos
- How to make an acoustic levitation machine Professor Bruce Drinkwater



Figure 4: Professor James Ladyman at his talk: "Should you be scared of robots that claim to care?" © Bhagesh Sachania Photography

Engaging Barton Hill Settlement community group, We The Curious - Young People and Parents

(6.30pm – 9.00pm)

FUTURES particularly aimed to engage people living in Barton Hill, one of the most deprived areas of Bristol. Originally, a hands-on science session had been planned for <u>Barton Hill Settlement</u> (the community centre) but after further consultation with the community, it was decided that the it would be most beneficial for the Somali Girls Group (young women and their mothers) to visit We The Curious. This meant they could meet a wider range of researchers at the *Research Fair* and attend a key cultural venue that most of them had never visited before. Free coach travel was organised to and from the community centre to enable them to attend easily.



Figure 5: Members of the Somali Girls group taking part in the Research Fair © Bruce Miller

Chain Reactions (Photographic Chinese Whispers)

MSCA Fellows took part in *Chain Reactions* to show research connections across Europe. Eighteen MSCA Fellows took part from UoB, UoBa and CU as well as the University of Barcelona, Autonomous University of Barcelona, University of Girona, University of Lleida, University Rovira i Virgili, Open University of Catalonia and the Barcelona Institute for Global Health. MSCA Fellows shared their research through a photograph and simple paragraph to explain it. Each image was sent to another MSCA Fellow who then had to keep an element from the picture they received (a colour, the composition, an object etc.) in their own photograph. The Chain Reaction photographs were exhibited in the EU Corner at the *Research Fair* and at *Inventions and Imaginings*.

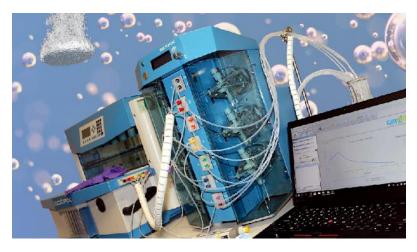


Figure 6: An example of a Chain Reactions photograph © Angela Effinger

EU Corners

EU Corners were located at the *Research Fair, Visions of Science* (Bath) and a smaller version at *Inventions and Imaginings*. All featured the EU flag, ERN pop-up banners, interactive activities, connections to relevant EU websites and information about European research funding. At the *Research Fair* the EU Corner was run by 15 MSCA Fellows throughout the day. They led interactive activities demonstrating European Commission-funded research projects, answered questions about EU research funding and discussed the European role in research and innovation. Activities included making chromatography flowers, creating a chemical garden and exploring the science behind liquid nitrogen (dry ice) and glowsticks. The EU Corner also included a world map and a map of Bristol to show where researchers and visitors came from to demonstrate that MSCA Fellows come from all over the world. The Chain Reactions photographs were also displayed alongside "A day in the life" photographs from different times of day for an MSCA Fellow – from eating breakfast to working in the lab. At *Visions of Science*, the EU Corner was delivered by MSCA Fellows and EC-funded researchers, using interactive games to engage visitors.



Figure 7: School children and families in the EU Corner with MSCA Fellows at the Research Fair © Bhagesh Sachania Photography.

<u>Inventions and Imaginings² and Art of Science workshops, The Island</u> – Families (3.00-5.30pm) and Adults (6.30-9pm)

The *Inventions and Imaginings* exhibition featured unusual research objects past and present as well as the opportunity to get creative and imagine the research objects of the future. Visitors could curate their own museum of scientific objects, take part in art of science workshops and speak to researchers about their work. The exhibition was curated with support from UoB's Special Collections team, artist Ellie Shipman and 10 researchers including MSCA Fellows. Alongside the exhibition, Art of Science workshops took place supported by Ellie Shipman. Visitors and researchers

² This activity was referred to as "Heritage of the Future" in the proposal. The name was changed to be more attractive to family audiences.

used artistic media design a blueprint for a new invention and use clay to create the fossils of the future. These activities enabled family and adult audiences less familiar with science to engage with research through the arts.

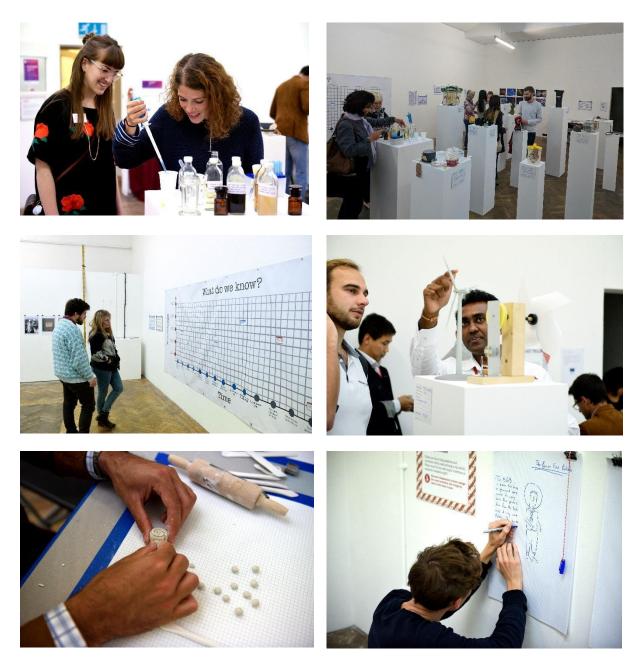


Figure 8: Inventions and Imaginings and Art of Science workshops © Bhagesh Sachania Photography and © Amy Walsh

<u>Tea with a Researcher³, The New Room at John Wesley's Chapel</u> - Older people (10am – 12pm and 2.30pm – 4pm)

³ This event was called Tea with a Scientist in the proposal but was changed to include non-science researchers. Having identified a gap in our programme for older people, the timings and location were adjusted to better suit this audience.

At this event, older people (over 65) met researchers in an informal environment to discuss cuttingedge research and share their views about it. They found out more about the people behind the research and their interests and motivations for their work. John Wesley's Chapel is a heritage site and The New Room was selected as it is popular with an older audience and provided a relaxed atmosphere. Older people were reached by sending physical invitations via networks such as LinkAge, University of the Third Age (U3A) and Bristol Older People's Forum. The activity was very successful with positive feedback from the older people and the 13 researchers who participated. Two researchers were asked to return and talk about their research at a local U3A meeting. This activity will be expanded for FUTURES 2019.



Figure 9: Tea with a Researcher at The New Room © Hannah Cowell and © Bhagesh Sachania Photography

<u>Researchers on Loan, Bristol's Central Library</u> - Adults (12.30pm – 1.30pm) and families (3.30pm – 4.30pm)

Central Library users were invited to "borrow" researcher and find out more about their research. Over lunchtime, researchers spoke to library users about research topics from quantum engineering to 20th Century music. During the afternoon, researchers delivered interactive activities with families in the Children's Library including maths puzzles, physics experiments and using microscopes. Nine researchers took part and following the positive interactions, this activity will be expanded in 3029 to local library branches, reaching people who may struggle to attend city-centre events.



Figure 10: Researchers on Loan at Central Library © Bhagesh Sachania Photography and © Amy Walsh

Bath:

<u>Up Late - Women and Creativity, The Holburne Museum</u> - Adults and Young People (5pm – 9pm)

FUTURES hosted an evening event as part of the museum's regular "Up Late" programme. It was themed around Women and Creativity and 12 researchers from the Gender and Sexuality Research Cluster at UoBa led the activity. The event explored connections between women's creativity and their place in society. The researchers used creative methods to facilitate in depth conversations with visitors such as collaborative poster-making, body mapping and a scavenger hunt. Researchers were studying Gender and Sexuality from different angles, giving visitors an opportunity to explore the inter-disciplinary nature of research.







Figure 11: Up Late - Women and Creativity at the Holburne Museum © Anna Barclay

Visions of Science⁴, The Edge - Adults (5.30pm – 9.30pm)

This evening of sci-art and entertainment was hosted by popular science comedian Dr Steve Cross. The event kicked off with a panel discussion about sci-art collaborations featuring the <u>River is the</u> <u>Venue</u> as well as an exhibition featuring local artists who had collaborated with scientists and an interactive EU Corner. The evening concluded with stand up comedy sets from researchers.



Figure 12: Visions of Science at The Edge © Anna Barclay

Bath City Centre - Walking with Scientists⁵ - Adults (2.30pm – 4.30pm; 7pm – 9pm)

Visitors took part in a guided walk with scientists around Bath, with stops chosen based on scientific topics from astrophysics to flooding. The walk was led by Olly Langdon from the award-winning <u>Kilter Theatre</u>. Ten researchers talked and answered questions about their work at specific stops

 ⁴ This event was referred to as "Knowledge Cabaret" in the proposal but was renamed for marketing purposes.
⁵ This event was referred to as "Science History Promenade" in the proposal but was renamed for marketing purposes.

along the walk. Due to its success as FUTURES, this is now a regular activitity at UoBa for researchers to take part in.



Figure 13: Walking with Scientists in Bath City Centre © Helen Featherstone

Day in the Life, Twitter⁶ - Adults (12pm – 11pm)

Researchers from UoB, UoB and CU created short videos to tell the public about their research. The videos revealed what a day in the life of a researcher is really like. Researchers were trained by the social media team at UoBa in how to produce a vlog using their mobile phone or camera. The videos that were produced were very popular on social media during the Night.

<u>The Cubicle (Changing Views, Changing Minds), 44AD Artists Studios</u>- Adults and Young People (11.30am – 5.30pm)

The Cubicle is an interactive walk-in changing cubicle developed in collaboration between Kilter Theatre and psychologists from UoBa. *The Cubicle* is designed to make people feel more body positive in the face of pressures from the media about body image. Visitors interacted with the exhibit and watched a short documentary showing the art-science collaboration. The researchers and artists were available to discuss the work and current research. Following the positive interactions, in 2019 *The Cubicle* will be moved to an area of Bath where there is a higher footfall.



Figure 14: Changing Views, Changing Minds at The Cubicle at 44AD © Katrina Kelly

⁶ This activity was moved from proposed image-sharing website Imgur so that videos could be created instead which were thought to be more engaging for the target audience.

Researchers on a Train, local train services - Adults and Families (11am – 4pm)

Working with the Severn Community Rail Partnership, researchers used unusual research objects (smart-concrete sensors, model human and frog brains and many others) to prompt discussions with travellers on their journeys between Bristol and local station Severn Beach. Researchers spoke to passengers and answered questions about their research and its relevance to daily lives. The activity engaged audiences who may not normally attend research events.



Figure 15: Researchers taking part in Researchers on a Train © Helen Featherstone

Changes to the event programme

Due to time constraints and changes in researchers' availability, some events listed in the proposal were unable to go ahead as planned. This included *Bristol as a Water City*, where a change in the project's end date meant that this event could not take place. Lack of capacity in the digital team at UoBa meant the online *Ask Me Anything* did not take place. This is planned for 2019 as the longer lead in time will mitigate the capacity issue.

Three lectures led by BSU (Environmental Humanities Lecture, Hope and Fear Lecture and Making Books: Workshops and Lectures) were redefined as the researchers approached for these lectures were no longer available. These three activities were replaced with the activities listed below, to ensure that BSU researchers were able to take part in FUTURES.

<u>The Uses and Purposes of Empathy, BRLSI (Bath Royal Literary and Scientific Institution)</u> – Adults (6.30pm-8.30pm)

How does empathy connect with modern lives and where does it originate from? Dr Alison Lee, neuropsychologist, delivered this lecture at BRLSI followed by a Q&A. It gave visitors the chance to explore the origins of empathy, its place within the brain, and its value as a tool for understanding others and ourselves.

<u>Illustration and the World Cup: Russia 2018 under the spotlight, Burdall's Yard</u> - Adults (6.30pm – 8.30pm)

This lecture was delivered by illustrator Tim Vyner, Senior Lecturer in Illustration at BSU. Tim travels the world drawing life in vibrant streets and cities. In 2018 he was commissioned by the Daily Telegraph newspaper to travel to Russia and complete an image a day illustrating the 2018 FIFA World Cup. During the lecture, Tim showed how illustration can capture the live narrative of what happened and how drawing can contribute to international sporting events.



Figure 16: 2018 FIFA World Cup illustration © Tim Vyner

Financial Literacy: business and economics workshops, Bath Spa University – 16-18 year old students (1pm - 5pm)

These workshops were delivered by lecturers in Business and Economics at BSU. They introduced students to research in topics including how consumers interact with sustainable packaging and the importance of financial literacy in young people in different communities and cultures. This gave students a flavour of studying these subjects at university and how research careers includes subjects which aren't traditional STEM subjects.



Figure 17: Dr Inna Pomorina discusses financial literacy with 17-18 year olds © Bath Spa University

Event	Venue	Time	Visitor	Visitor Type	Male:Fema
			Count		le Ratio
Research Fair	We The Curious	Daytime	347	Year 9-14	50:50
(Schools)			43	Teachers, parents	50:50
TOTAL			390		
Research Fair	We The Curious	Evening	453	Adults & Families	50:50
(Public)					
TOTAL			453		
Public Talks	We The Curious	Talk 1	57	Adults	50:50
		Talk 2	37		50:50

Overview: Number of attendees

GRAND TOTAL		5257				
BATH AND ONLINE	TOTAL	3831				
				people		
Day in the Life	Twitter		3351	Adults, young	50:50	
workshops	University			(16-18)		
Financial Literacy	Bath Spa	9:00 - 12:00	24	School students	50:50	
Empathy						
Purposes of						
The Uses and	BRLSI	18:30 - 20:30	23	Adults	50:50	
spotlight						
2018 under the						
World Cup: Russia				Adults		
Illustration and the	Burdall's Yard	19:00 - 20:30	40	Young People and	60:40	
				Families		
The Cubicle	44AD	11:30 - 17:30	23	Adults and	30:70	
Scientists		19:00-21:00		Adults	30.50	
Walking with	Bath City Centre	14:00-16:00,	40	Families and	50:50	
Visions of Science	The Edge	17:30 - 21:30	60	Adults	45:65	
Train	Bristol - Severn Beach	11:00 -	210	Families	20.00	
Researchers on a	m Bristol - Severn	11:00 -	210	Adult and	20:80	
Up Late - Women & Creativity		17.00-21:00	00	18-25 year olds	40.00	
BRISTOL TOTAL	Holburne Museu	17:00-21:00	1425 60	18-25 year olds	40:60	
		60				
Loan		Afternoon	22	Families	10:90	
Researchers on	Central Library	Lunchtime	38	Adults	50:50	
TOTAL	Controllibre	23	A dulta	50.50		
Researcher	Café	Afternoon	9		30:70	
Tea with a	The New Room	Morning	14	Older Adults	20:80	
TOTAL				66		
Imaginings		Evening	36	Adults	60:40	
Inventions and	The Island	Afternoon	30	Adults, families	60:40	
TOTAL				206		
		Session 6	28		40:60	
		Session 5	32		40:60	
		Session 4	32		40:60	
		Session 3	34		40:60	
		Session 2	28		40:60	
Researchers' Tales	We The Curious	Session 1	52	Adults, families	40:60	
TOTAL		227				
		Talk 5	26		50:50	
		Talk 4	42		50:50	
		Talk 3	65		50:50	