

REF output - Portfolio SMASHfestUK 2015-2019

Output details:

34 - Art and Design: History, Practice and Theory
University of Greenwich
SMASHfestUK 2015-2018

Year of first exhibition 2015

Type K Portfolio

Venue(s)

The Albany Theatre, London,
The Deptford Lounge London
Bradford Science Festival 2017
Cardiff Science Festival 2017

This is a multi-component output

Originality:

Keith and Griffiths developed a science/technology/engineering/arts/maths (STEAM) festival (SMASHfestUK) based on participatory-action-research involving communities and an inclusive, humanity-centred approach to the design of events. SMASHfestUK explored the reasons for the under-representation of white working-class (WWC) and Black and Minority Ethnic (BME) people in arts and cultural spaces and at extra-curricular educational events, and proposed and tested solutions. Keith and Griffiths developed a dynamic model (“SCENE”) for inclusive public-engagement based on the use of disaster-narratives, community co-design, and a (hyper)local approach to the use of public spaces. Over 4 annual iterations the model was developed dynamically to explore and improve the demographics of attendance compared to other similar events.

Rigour:

SMASHfestUK designed and delivered Co-design workshops with stakeholders including school pupils and their families, scientists, academics, professional engineers, teachers and researchers prior to each iteration of the festival. The results of the co-design workshops were fed into the engagement model such that all events at each festival reflected the input of the stakeholders. After each of 4 annual festivals an independent evaluation using front-end and summative methods capturing quantitative comparative data and qualitative reflection was carried out, and the findings fed into the dynamic model. Inputs were mapped against outcomes in a theory of change model to uncover leverage points and areas where smallest inputs yielded largest results. These changes, aimed at improving and deepening engagement of WWC and BME audiences, were incorporated into PAR and co-design for the next festival/iteration.

Significance:

The significance of the creation of SMASHfestUK and the development of the SCENE model has been seen across three areas, changing practice, changing policy and impact of outcomes. SMASHfestUK was the first time inclusive design practice and methodology has been used to co-create a festival. The results of using the SCENE model were that a much greater representation of BME children (71% visited the event compare to 9% at the British Science Festival). The repeated success of attracting BME audiences resulted in changing practice – the UK Science Festivals Network is now actively promoting design-lead public engagement. Keith has been an invited panellist for NESTA (Everyone Makes Innovation Policy), and was also invited to contribute to an All-Party-Parliamentary-Group on Inclusion and Diversity in STEM. SMASHfestUK were consultants for the re-launch of the Science and Technology Facilities Council new Public Engagement Strategy (2017), and was presented at an ERASMUS+ project NATRISK (<http://natrisk.ni.ac.rs/>) as a method for engaging publics in real-life disaster planning in the Balkan region. SMASHfestUK was also invited to contribute to a small-group of stakeholders who co-created a code of practice of public engagement in engineering along with BP, Shell, Depts for Education, BEIS, and Trade and the Ministry of Defence.

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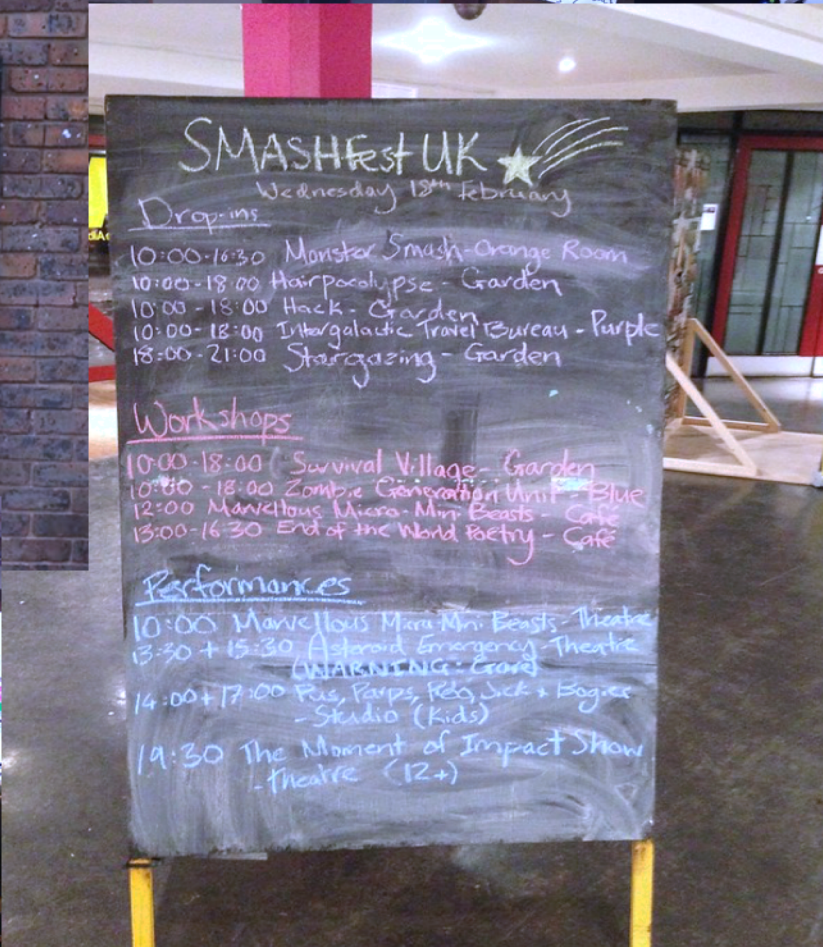
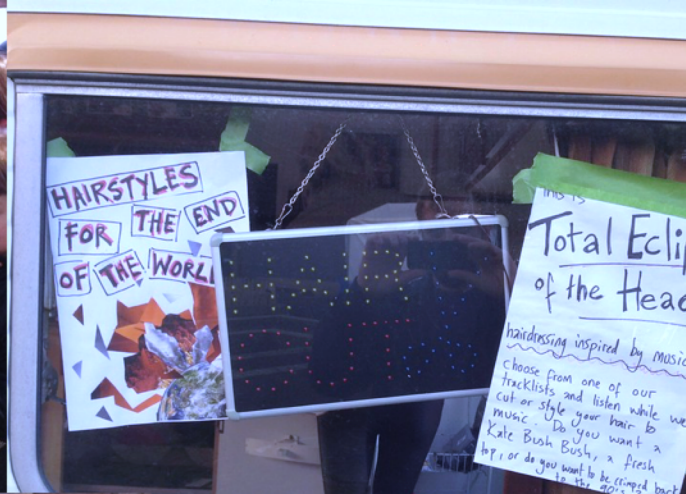
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CONTACT

Dr Lindsay Keith
The Refinery
020 7787 8068
07970 963 976
Lindsay@refinery.tv

FOR IMMEDIATE RELEASE

Meteoric science festival bound for London *Press release*

Lewisham, London, 14-22 February 2015 — SMASHfestUK, a brand new science and arts festival for young people, will pilot in Deptford, south east London during the February half term holidays.

Part sci-fi, part horror and post-Apocalypse, the festival is themed around a gripping story in which an asteroid is on a collision course with Planet Earth and a zombie invasion ensues. Visitors will have the chance to plan for Armageddon, whether it's preparing for survival, singing for their lives at the End of the World Cabaret, creating a time capsule or taking a trip to the Intergalactic Travel Agency.

SMASHfestUK is the first event of its kind, designed to widen participation and build diversity in science, technology, engineering and maths (STEM) by engaging young people and hard to reach audiences.

SMASHfestUK is the creation of science TV production company The Refinery, and is partnered by the Stephen Lawrence Charitable Trust, the Wellcome Trust, Middlesex University, and the Royal Observatory Greenwich.

Science: too white, too middle class

Over the next decade, the UK is heading for a shortfall of more than 50,000 workers for the STEM sector, but only 15% of students aspire to science careers.

In boroughs like Lewisham, the school population comprises almost 75% black and minority ethnic students. Yet black students identify even less strongly with science as a career aspiration, because of its overwhelmingly white, male, middle class image of science, and the multiple inequalities they face growing up, according to a recent study (see notes to editors).

Dr Lindsay Keith, CEO Refinery Productions Ltd, said:

- Wellcome Trust – Engaging Science Grant £27,915 (peer reviewed)
- Middlesex University - £20,400.00
- Arts Council - £15,000.00
- L&Q Housing - £5,000.00
- Physiological Society - £1,220.00 (peer- reviewed)
- Indiegogo - £2,353.60

[Full photographic documentation of all SMASHfestUK Festivals 2015-2019 can be found here:](#)

<https://www.flickr.com/photos/30542236@N04/albums>

PARTNER & CONTRIBUTOR LIST

SMASHFEST is funded by Middlesex University and the Wellcome Trust. Our list of delivery partners and supporters is rich, diverse and wide-reaching. Our partnerships and collaborations have been cultivated to support a high standard of event delivery and realise the goal of achieving diversity and access in both our programming and audiences.

Mixing up science communicators with arts practitioners and local organisations and communities, sustainable collaborations will be formed with the purpose achieving diversity and growing our audience.

wellcometrust



**Middlesex
University
London**



**Stephen Lawrence
Charitable Trust**



**The
Physiological
Society**



**The Academy of
Medical Sciences**

**ROYAL CENTRAL
SCHOOL OF SPEECH & DRAMA
UNIVERSITY OF LONDON**



engineers without borders uk



Supporting Ideas, Collaboration & Innovation



Royal College of Art

**Goldsmiths
UNIVERSITY OF LONDON**



ARTICIPATE MEDIA



The Stephen Lawrence Centre
Lewisham Council
Science Museum
Science Showoff
The Royal Observatory Greenwich
The London Centre for Creative Collaboration
(inc. The Royal College of Art, The Central
College of Speech and Drama, The Royal
Holloway, Goldsmiths University)
The Physiological Society
The Academy of Medical Sciences
The Institution of Mechanical Engineers
Engineers Without Borders
Deptford Library
The Moonshot Centre
The Albany Theatre
Deptford Green School
Childeric School

moonshot



Studio PSK
Art Alert
Articipate Media
Redloop design and innovation centre
Sujata Kundu (Discovery Channel)
Fran Scott (CBBC, Bang Goes the Theory)
Ortis Dely (The Gadget Show)
Robert Llewellyn (Scrapheap Challenge & Red Dwarf)
Maggie Philbin (Tomorrow's World & Teen Tech)
Greg Foot (BBC & Wellcome Trust Fellow)
Gia Milinovich (TV Presenter & Tech-Guru)
Tracy King (UK's leading female gamer)
Helen Arney (Festival of the Spoken Nerd)
Steve Cross (Stand-up Comedy)
Simon Watt (Readysteadyscience.com)
Brendan Walker (Thrill Engineer)
Andrew Robertson (Actor, Digital Music Researcher, OMUL)
Mark Stevenson ('The Optimists Guide to the Future' Author)
Howie Watkins (Really Wild Show & Conservation Specialist)

SMASHfestUK

PURPLE ROOM:

- * Intergalactic Travel Bureau
- 12:00 - 18:00 FREE

SMASHfestUK

STUDIO:

- * Pus, Parps, Poo, Sick & Bogies
- 14:00 & 17:00hrs (Running time 1 Hr)
Primary School Age & Families.

Some of the events run during the festival (from flyers, websites, leaflets)



SMASHfestUK

GARDEN:

- * Survival Village
- 12:00hrs - 18:00hrs FREE
- * Hairpocalypse
- 12:00hrs - 18:00hrs FREE
- * HaxBox: Human powered video games & music production
- 12:00 - 18:00 FREE
- * Stargazing with Flamsteed Astronomy
- 18:00 - 21:00 FREE

LOADS MORE TO COME...
WHAT WILL YOU DO?

At The End of the
world supermarket

the people's
ark

Haxbox

Moment of
Impact

ugly animal
a.r.c.

pus, poo, parps
sick & bogies

meet the
vectors

water in...
water out

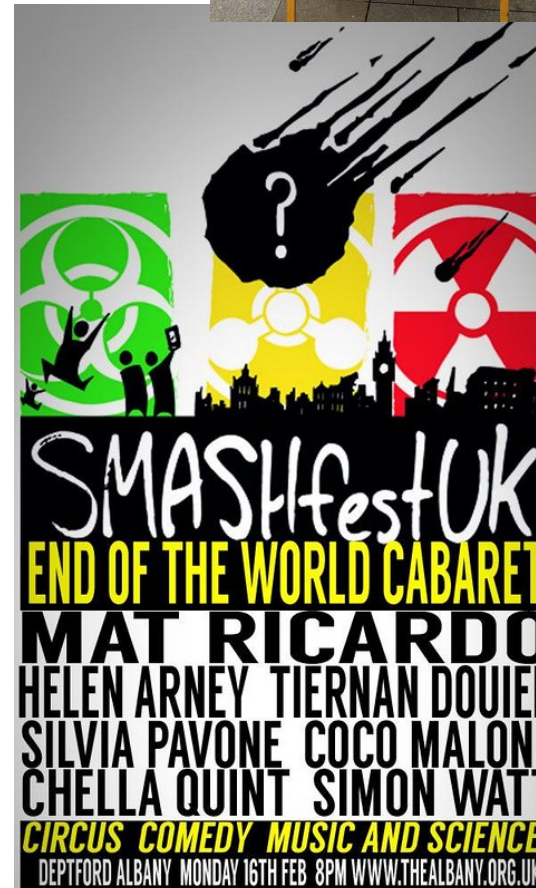
countdown
clock

build the village at
the end of the
world

Space rock
stars

survivability
factor

SMASHfestUK is working with Lewisham Council, schools, residents' and community groups adjacent to the corridor to develop content that is meaningful to the community. They will interweave with and extend the events developed by the SMASHfestUK team and delivery partners (See 'Partner and Contributor List').



SMASHfestUK

ORANGE ROOM:

- * Godzilla in Deptford
- 10.00 with grand finale at 16.00 FREE

SMASHfestUK

THEATRE:

- * Marvellous Micro Mini-beasts..
- 10:00 (Running time 45mins)
- * Asteroid Emergency: Operation Impact
- 13:30 & 15:30 (Running time 45 mins)
Gore Warning - realistic scenes of injury & surgery
- * Moment of Impact Show
- 19:30 (Running time 1.5 hours)

Quotes from contributors

1. *The event had a lively feel that fitted well with the community context. The overall theming worked well and allowed a lot of flexibility in the choice of activities and subject matter. The event was well attended and the audience were enthusiastic.* Howie Watkins, presenter The Really Wild Show, BBC
2. *Both shows were a lot of fun. Lovely audiences for both and really enjoyed myself... Had a few parents tell us after the show that both they and their children had enjoyed.* Tiernan Douieb, Stand-Up Comedian, Comedy Club for Kids
3. *I got lots of laughs so I guess that was good! I also got a few positive tweets after the careers event.* Sheila Kanani, Education, Outreach and Diversity Officer, Royal Astronomical Society
4. *When I was stood outside one of the theatres as they all came out after a show, I announced the next event happening in ten minutes. One child looked so excitedly and was pulling his father along. He smiled and looked at me and said "He's never been to so much theatre before!" which I thought was lovely - this was great on several levels because not only are we entertaining the children during half-term, we're keeping it educational and introducing them to science, but also introducing them to the theatre generally.* Cat McGahey, Data Analyst

1.3 New audiences were reached

This was an unusual event, with a diverse range of activities exploring science in an entertaining and creative way, so it was very likely that everyone attending experienced

¹ We have not had time to consult with teachers and pupils on their responses to the workshops and talks in four local schools.

Flow UK

Evaluation of ~~SMASHfestUK~~

April 2015

something new. Everyone saw scientific ideas as relevant to themselves and to potential situations in real life.

The event helped the Albany Theatre reach new audiences. Part of the festival was in Deptford Lounge, where regular users of the library were drawn to the other events in the Albany. Many of these had not heard of or visited the Albany, despite being very local.



LPF Kiddies Club @LPFKiddi... 10 May 2018

#bt to our club children's very first @SMASHfestUK experience in 2015 we loved it so much that we have been back every year since.

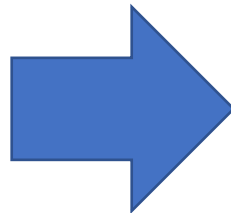
What will inspire you to become
#STEMHEROES



1 10 13 ...

Co-Design 1

The producers and designers of SMASHfestUK went through several cycles of co-design with stake-holders/audiences to ensure that the festival was responding to needs and desires of the local and BME community. These are documented on the following four slides.



Co-design work resulted in



Concept setting film for the festival undertaking commitment to be true to co-design and feature aliens and zombies at the festival.

SMASHfestUK Concept film available to view at

<https://youtu.be/Sdiit1I5WBc>



SMASHfestUK @SMASHfestUK 18 Oct 2014

Great to see passionate @LewishamCouncil residents out to discuss future of borough. (which may include an asteroid)
pic.twitter.com/Kep9J9qU0t



3 2

Co-development of festival concept and content with Lewisham Young Mayor and Ambassadors Advisors group, and with Lewisham Housing residents. Lewisham Council, Catford. November 2014 and February 2015.

Co-creators advised that they wanted "aliens and zombies" in the festival.



[Community co-produced SMASHfestUK zombie film available to view at http://youtu.be/lbb-EhLGb40](http://youtu.be/lbb-EhLGb40)

Production of a co-created and co-produced Zombie Film featuring the Mayor of Lewisham, students from Middlesex University, Deptford Green and Haberdashers Aske's Schools.

Co-Design 2

One element of co-creation, planned to engage audiences and create user generated content was the creation of “survival plan” films.



SMASHfestUK
@SMASHfestUK

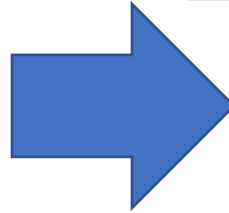
An asteroid is about to hit London. What will you do? SMASHfestUK have subtitles in English for hard of hearing...
fb.me/2WevGt1Ho

3:27pm · 12 Jan 2015 · Facebook

||| Open Twitter Analytics



SMASHfestUK followers and co-creators were encouraged to make their own “Asteroid Survival” films and upload them to youtube.



Co-design work resulted in



● **Kerri aka Auntie Cake Ba...** 14 Jan 2015
My daughter & her friend decided to video THEIR Asteroid Survival Kit for @SMASHfestUK youtu.be/lj3hccKE_Jc #Survival #SMASHfestUK



💬 ↺ 2 ❤️ 1 ⋮



SMASHfestUK '15 - Jonathon Joanes News Update (UGC)



Asteroid Survival Guide by Naomi Whitney (UGC) - SMASHfestUK '15

User generated and co-created examples of content can be seen here:

<http://bit.ly/33XljqK>
<http://bit.ly/2Qr84LZ>

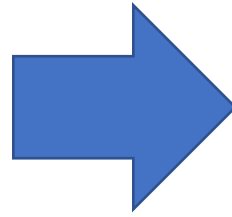
mock news report.
<http://bit.ly/2QoL5RU>

Co-Design 3

Middlesex University Product Design and Engineering
Final Year Students creating interactive games for the
"Survival Village" area in SMASHfestUK



Post apocalyptic mobile phone charger. An interactive game where visitors learned to charge their phones using pedal cycle energy.



Co-design work resulted in



Music for the End of the World. An interactive robotic band.



STEM Heroes Photo Opportunity to encourage visitors to see themselves embodied as science and engineering superheroes.

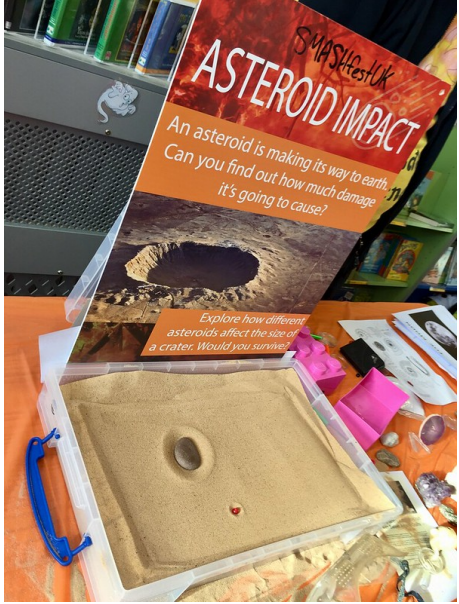


Co-Design 4 – Public Lecture Series

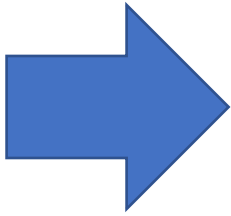
- Prof Monica Grady (Professor of Planetary and Space Science Open University)
- Dr Sujata Kundu (Head of Public Engagement, Digital Science)
- Dr Lindsay Keith (University of Greenwich)
- Yomi Ayeni (Royal College of Art)



Stargazing with the Flamsteed Astronomers



Crater making and meteorite making interactive games




Co-design work resulted in



Careers information and support for young people and parents interested in finding out more about STEM careers

Social Media Extracts for SMASHfestUK 2015

 **Nicole Yershon** @nicoleyershon 12 Jan 2015
asteroid heads 4 London, armageddon imminent? Help fund SmashFestUK 2 engage public in Science&Tech.
[@Ogilvy_Lon_Lab](http://ow.ly/Hajci)
1 7 5

 **Sarah Johnson** @SarahDDJoh... 12 Jan 2015
Replying to @nicoleyershon
@nicoleyershon I have high hopes for your campaign! Email me more at Launch@GoFundRocket.com
1 1 1

 **Nicole Yershon** @nicoleyershon
Replying to @SarahDDJohnson
@SarahDDJohnson it's the wonderful @yoms who is the main man x great initiative - love it and it's needed x
12:33pm · 12 Jan 2015 · Twitter for iPhone


1 Reply

SMASHfestUK 2015 being discussed on Twitter by Nicola Yershon, Head of Advertising Agency, Ogilvy Labs.


“love it and it's needed”.


 **London STEM Team**
@STEMLondonHub

At the #engengagement event, @DrLindsayKeith from @SMASHfestUK said kids love zombies! Check out our @STEMclubs activities based around surviving a zombie apocalypse, asteroid impact and more. They're all easy to run with pupils! #STEM

 **Theatre Deli London** @theatr... 13 Feb 2015
RT @ace_national: Will an asteroid hit Lewisham + lead to zombie apocalypse? Find out @SMASHfestUK on @TheAlbanySE8 - Fab for half term!
3 4

 **Arts Council England** @a... 13 Feb 2015
Will an asteroid hit Lewisham and lead to zombie apocalypse? Find out with @SMASHfestUK, on @TheAlbanySE8 & other places. Fab for half term!
19 11


 **Shane McCracken** @ShaneM... 13 Feb 2015
Replying to @OpheliaBottom
@OpheliaBottom An asteroid approaches and @alomshaha hopes it is a big hit. What did we all do wrong?
@SMASHfestUK
2 4

 **The Big Bang London** @TBB... 13 Feb 2015
24 hr countdown to @SMASHfestUK Will an asteroid hit Lewisham and lead to a zombie apocalypse? smashfestuk.com pic.twitter.com/8bhbeKhizK



 **Wellcome Trust** @wellco... 16 Feb 2015
What would you do if an asteroid was heading for London? Find out at free festival @SMASHfestUK this half term bit.ly/17haEtH
9 5

 **Hilary Leever** @HLeever 16 Feb 2015
Not too late to join in free half term events @SMASHfestUK Deptford Albany - all themed around post apocalyptic asteroid strike... Fun eh?
6 3

 **Spread the Word** @STWevents 16 Feb 2015
Loving @SMASHfestUK taking over @TheAlbanySE8 for tonnes of fun in preparing for an asteroid coming to earth...seeing is believing!
1 3

 **Guerilla Science** @GuerillaSci... 15 Feb 2015
About to go intergalactic at #smashfestUK Best time to plan a space vacation? When an asteroid is headed for Earth!
pic.twitter.com/rdk4t76VPs



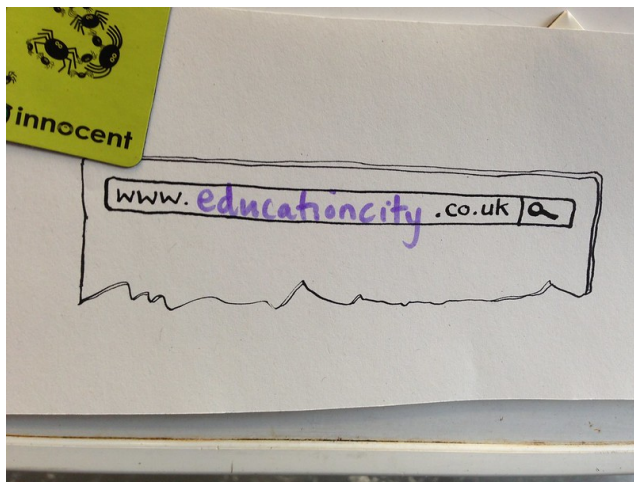
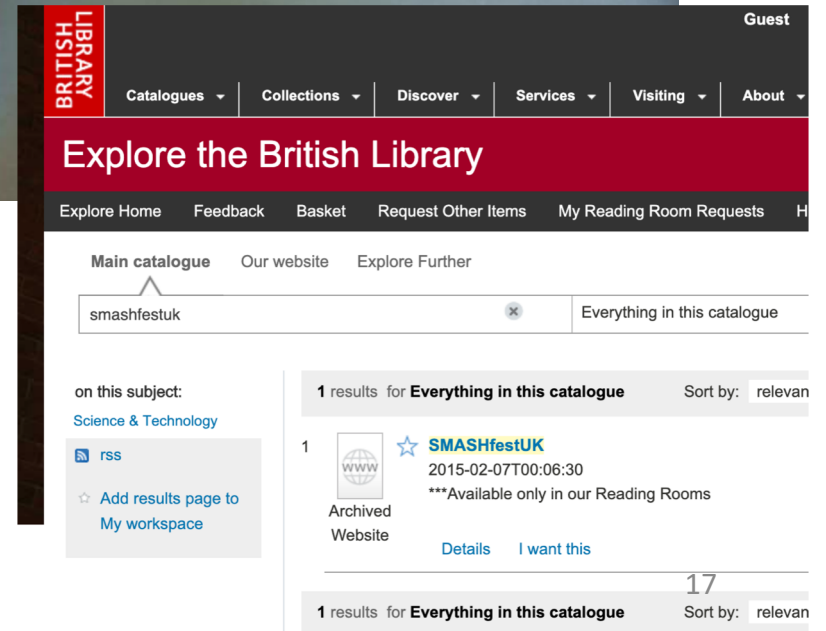
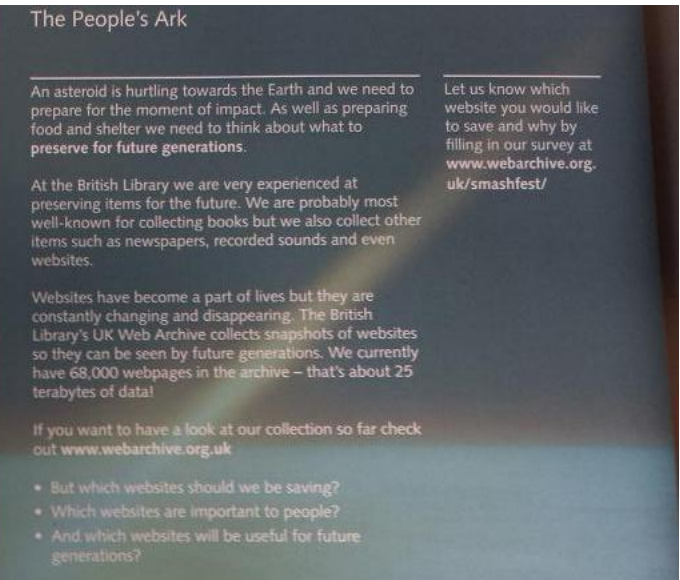
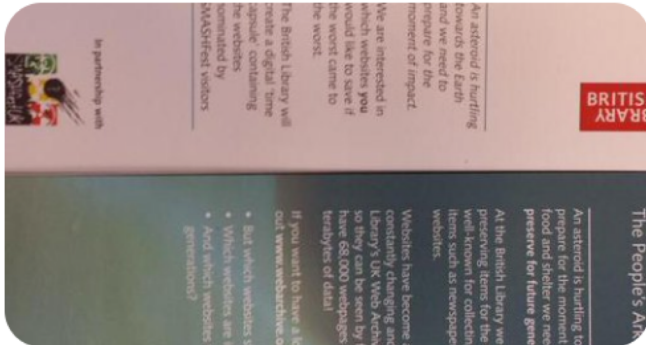
1 2

16

The People's Ark – collaboration with the British Library

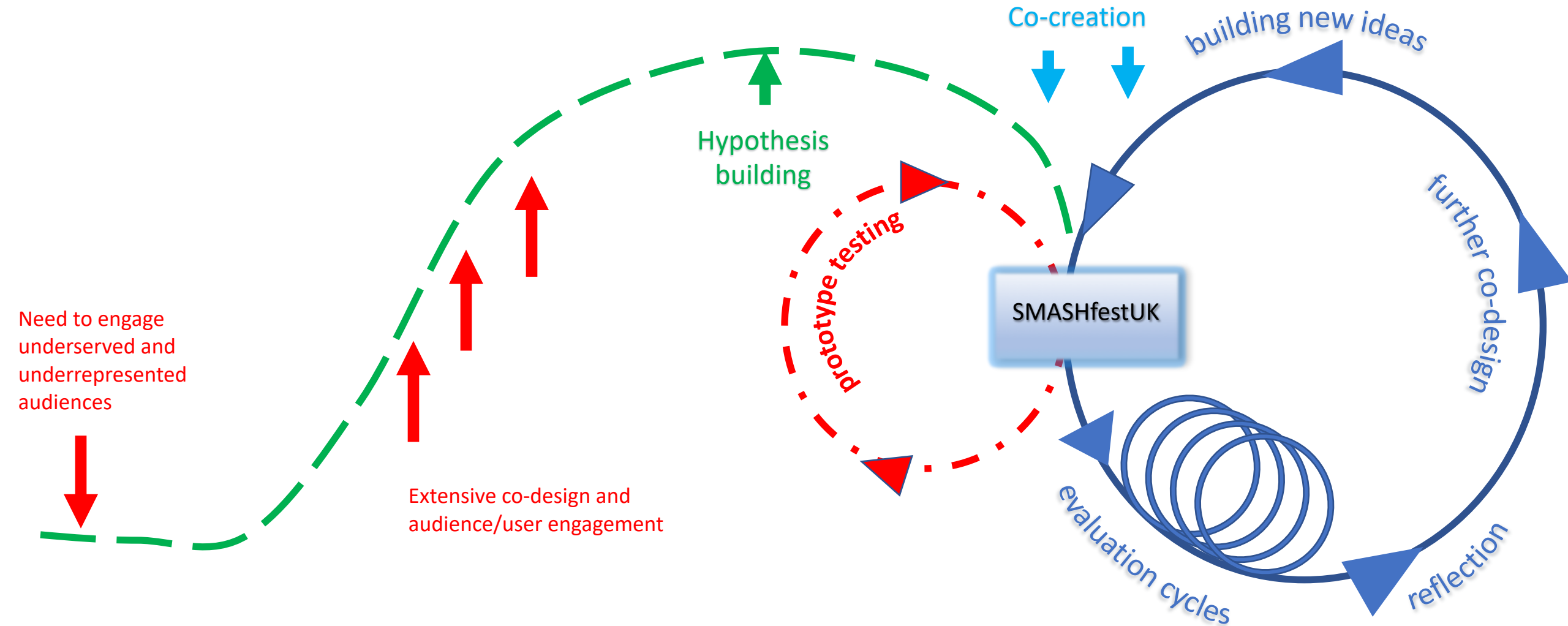


SMASHfestUK @SMASHfestUK 16 Feb 2015
#smashfestuk People's Ark w
@britishlibrary. What website would u
preserve 4 digital history? bit.ly/1DfNjXf
pic.twitter.com/OPXzIJBgRK



In collaboration with the British Library, and in keeping with the apocalyptic themes of the festival, we created The People's Ark, where visitors were invited to submit examples of current local websites (including www.smashfestuk.com) to be collated into a digital collection to be preserved in the British Library for future generations.

2015 to 2018 – a new design iteration



Examples of learnings, iterations and prototype solutions

	Learning	Solution implemented following year
2015	Audience skewed young	Piloted Young Explainers Programme for 16-18 year olds
2015	Ticketing is a barrier even when free	Direct personal invitation, giving tickets out, holding back 30% of tickets which cannot be pre-booked to distribute on day of performances
2015	Not enough information about times and events	Full colour brochure with schedules and better signage for all events.
2016	Engage more secondary schools	Introduced Young Designer's programme with Design and Technology Department at Deptford Green Secondary School with showcase at festival
2016	Improve visibility for attracting bypassers	Introduced "science buskers" on the streets of Deptford.
2017	More high profiles marketing decreased local representation and BAME representation.	Returned to local-only marketing, local social media Facebook groups, local ambassadors and word of mouth marketing.
2018	Core funding required to sustain team and overhead costs.	Festival becomes biannual, and rests in 2019, returning in 2020 with fully immersive experience.

SMASHfestUK 2016: “Solar Storm”

1.

Tackling critical issues: introduction

February 2016 - a solar storm is about to hit Deptford. Electricity, electronics, communications and infrastructure will all be hit. Deptford - and the world – will plunge into darkness as hospitals crucollapse, water supplies dry up ... life and health are at immense risk...!

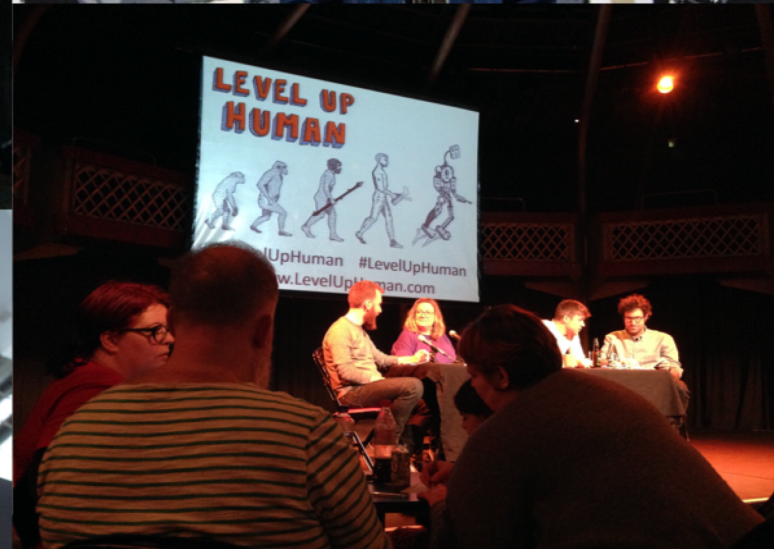
This was the scenario for SMASHfestUK 2016. This hyper-local Festival creatively interwove arts, science and entertainment to engage young people in science, technology, engineering and maths (STEM). SMASHfestUK 2016 took place in Deptford at The Albany and Deptford Lounge over the spring half-term 18-21 February 2016. This was the second year of the Festival, following a successful pilot in 2015.

The same professional team built on the innovative model developed in 2015 to explore a ‘what if’ scenario of the impacts of a global catastrophe. A fictional narrative of what would happen if the earth faced devastation from a solar storm linked together the programme for SMASHfestUK2016. Audiences were alerted as to how science and creativity might solve the issues of creating resources and energy to build a new future. The potential of science was revealed through inventive concepts such as a human power station, a self-build planetarium and the genetics of superheroes. Ideas were presented utilising the skills and imagination of artists, scientists and creatives to develop activities to engage audiences through performances, poetry, music, comedy, Aardman-style animation, virtual reality experiences and interactive installations as well as a coding club, exhibitions and films.

Funding for SMASHfestUK 2016 was provided by:

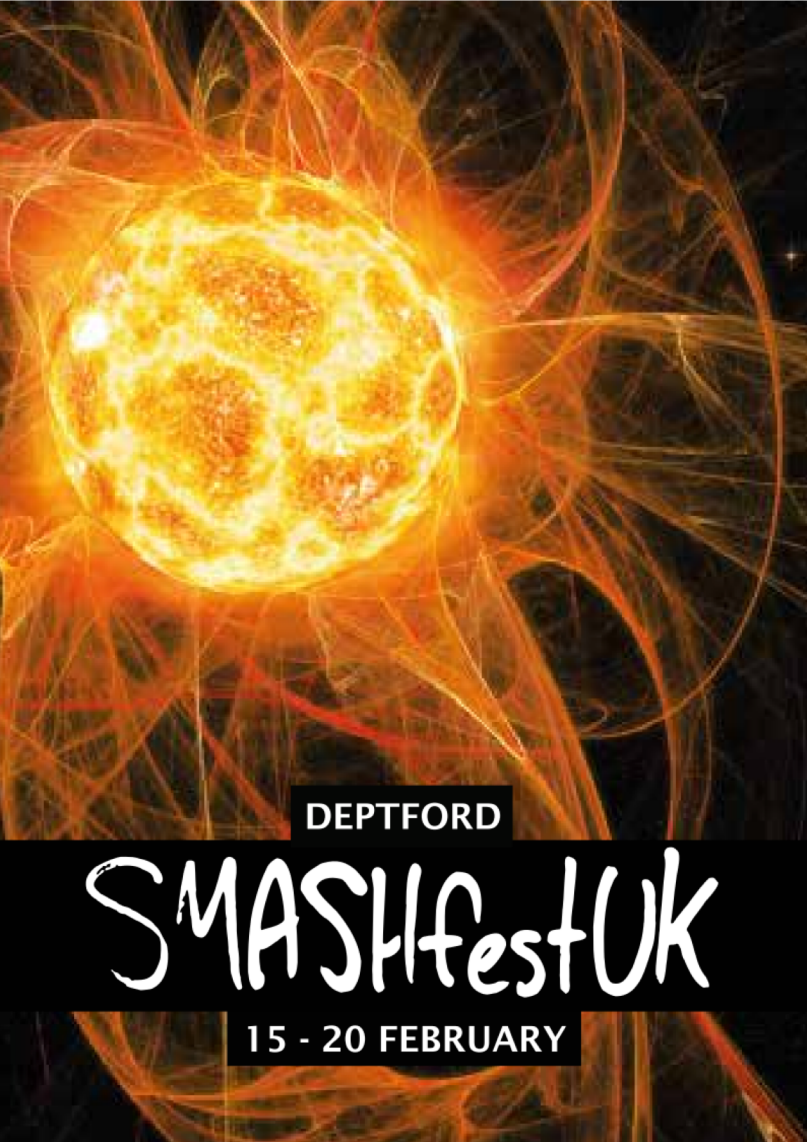
- Middlesex University London;
- The Refinery;
- Wellcome Trust;
- Arts Council England;
- Royal Society of Chemistry;
- Science & Technology Facilities Council;
- University of Greenwich;
- Lewisham Council; Biotechnology and Biological Sciences Research Council (BBSRC)

SMASHfestUK 2016 was independently evaluated by Pam Jarvis and colleagues from <http://www.sam-culture.com/people/> who are highly experienced arts, culture and heritage consultants. The full evaluation can be viewed online at <http://bit.ly/SMASH2016Evaluation>



SMASHfestUK 2016

Events Brochure (with examples)



SMASHfestUK 2016	
CONTENTS	
BUILD A BATTERY COUNTDOWN	03
CRACKING THE CODE	04
CODE CLUB	05
COMEDY CLUB FOR KIDS	06
COSMIC VIBES	07
DIY OPEN SOURCE PLANETARIUM	08
THROWING SPANNERS AT NANOBOTS	09
DR DEATH	10
ELECTRIC PAINT WORKSHOPS	11
EMPE	12
SURVIVAL VILLAGE GEODESIC DOME	13
GLOWBAR	14
HUMAN POWER STATION	15
I'M WEARING MY THERMALS	16
LEVEL UP HUMAN	17
MUTANT CIRCUS	18
PHOTOVOLTAIC FRENZY	19
SECRET FILM CLUB	20
SMART MATHS TOWER GAME	21
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SOLAR STORM EXHIBITION	25
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THE SUN AT NIGHT	27
SOLAR STORY TELLING	28
SUNDOWN SHOW	29
SURVIVAL VILLAGE DEN BUILDING	30
THE AMAZING SCENE MACHINE	31
THE GREAT BALL OF FIRE SHOW	32
THE MUTATION GENERATION UNIT	33
THE UGLY ANIMAL ROADSHOW	34
TRAVEL THROUGH A SOLAR STORM	35
UV+ME	36
ADDITIONAL INFO & JOIN US	37, 38 & 39
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THE ALBANY

COSMIC VIBES

PREMIERE OF A NEW PLAY BY REBECCA MANLEY

Thursday 3PM, Friday 1PM & 3PM Saturday 3PM & 6PM
VENUE: THE ALBANY | STUDIO

Rory doesn't like doing what is expected of her. When she's told science is for boys and people like her don't go to university something explodes quietly inside her and she is determined to prove everyone wrong. But she is stopped in her tracks when she hears of an eruption elsewhere, on the surface of the sun. And Rory knows more than most 17 year olds what this might mean for Deptford and way beyond.

A cast of young local actors bring to life this new play that asks what might happen if a solar storm hits the earth. Expect playful and wholly subjective musings on astrophysics, the Matilda effect and rubber chickens.

Age range: Suitable for ages 9+
Children must be supervised by parents/carers at all times

TICKETED

DEPTFORD LOUNGE

DIY OPEN SOURCE PLANETARIUM

ALEKSANDER ZIVANOVIC & WYN GRIFFITHS

Monday - Saturday 10AM-5PM
VENUE: DEPTFORD LOUNGE

How do we prepare for a Solar Storm? One way is to understand the Sun, our solar system and the cosmos in general. London currently has just one Planetarium, a place where we can immerse ourselves in the wonder of the cosmos. SMASHfestUK will bring you London's 2nd Planetarium! An Open-Source DIY Planetarium, at that. We'll be building a geodesic dome from upcycled materials, and using a London underground convex mirror, standard laptop, projector and open-source mapping software to create a planetarium in the Deptford Lounge.

Join us to experience the shows and to find out how to build your own (with a small material cost and some time and effort).

Lie back and gaze up at the stars...inside, during the day... Find out about our Solar System, what we can see in the skies from Earth...the wonders and terrors of the universe!

Age range: Suitable for ages 5+
Children must be supervised by parents/carers at all times

THE ALBANY

I'M WEARING MY THERMALS

SMASHfestUK WITH DR NATE, DR INDI & THE YOUNG SCIENCE EXPLAINERS

Thursday 2-6PM | Friday & Saturday 10AM-6PM
VENUE: THE ALBANY | YELLOW ROOM

This is an epic game of hide-and-seek using only the heat from your body as the signal that will give away your hiding place. Will you find a thermal hidey-hole to tuck yourself inside before the seeker comes looking with their thermal imaging camera? We will discover tricks and traps that can help you hide or give you away - all using the power of the electromagnetic spectrum. Is it a game of smoke and mirrors? Or will it blow hot or cold? You decide your strategy in this SMASHfestUK game of cat and mouse!

Age range: Suitable for ages 7+
Children must be supervised by parents/carers at all times

SMASHfestUK 2016 Key facts

- 35 unique events (increase from 27 in 2015)
- 1048 attenders for ticketed shows; 850 through Deptford Lounge activities
- Increase in SMASHfestUK social media: 70 Tweets; 36.9K Tweet impressions; 808 Twitter followers (up from 600), top tweet earned 2,379 impressions; 82 new followers with top interests of Science News and Technology.
- 94 artists and creatives involved including writers, artists, performers, poets, musicians, digital producers and filmmakers
- 40 scientists involved including epigeneticists, design engineers and a Professor of Mathematics
- 64 collaborations (including Greenwich Student films) emerge as a result - new artworks, presentations, and performance
- 20 young people volunteered as Young Science Explainers
- SMASHfestUK Community Audience Development Programme (CADP) ran year round, developing new connections
- SMASHfestUK established and consolidated innovative partnerships with major cultural and scientific institutions including Wellcome Trust, Middlesex University, Arts Council England, Royal Society of Chemistry, Science and Technology Facilities Council, The Refinery, , University of Greenwich, Royal Observatory, Lewisham Council, Telegraph Hill Festival
- Relationships with arts and cultural organisations grew successfully including The Albany, Deptford Lounge, Fun Palaces, National Maritime Museum, Besson Street Community Garden, Mind's Eye and local youth theatre - GLYPT and The Midi Music Company
- Local partnerships are extended - including Lewisham Education Arts Network (LEAN), The Mayor's Office, The Young Mayor's Office and the Lewisham Pupils Ambassadors Scheme.
- Schools enrichment programme (SEP) delivers 9 education events and outreach projects involving over 2924 schoolchildren
- Relationships with local businesses (L&Q Housing, CIS Security) are brokered and new sponsors invest in the Festival
- A new governance format: an independent not for profit legal entity is being set up to deliver the Festival
- Building a loyal audience: 30% of attenders at the 2016 Festival had been to SMASHfestUK in 2015, showing that the Festival is starting to build a loyal following.

Audience Testimonials – what did they enjoy and why?

‘Lots of adults and young people coming together to have fun and learn...and it's free!’

‘A great day out for the kids’
(10 survey respondents said this)

“Everything - sorry its true - everything as no matter the age you can still get involved”

‘Seeing the children learning and enjoying the event

‘Come and learn together with the kids about science’

‘Spending some time with the children and learning’
‘Seeing the children learning and enjoying the event

‘The opportunity for a fun day with the children watching them learning and enjoying themselves (whilst learning myself!’)

‘Affordable activities that have thrilled my daughter throughout her holiday’

‘Seeing kids enjoying science’

‘Watching young people engage in science’

‘Seeing my grandchildren really enjoy science’

All quotations are from audience members

Contributor Testimonials



Socially and politically, SMASHfestUK aligns totally with the sort of work I want to make as an artist as it is free and inclusive. I believe in the message underpinning the play completely, which is to do with the empowerment of women and encouraging diversity in a field that historically has been the domain of white middle class men. I knew the quality of the work would be good as there was an established writer and experienced and talented producers on board.'

Alice Knight, Theatre Director of SMASHfestUK's Cosmic Jives

The Maths team got involved as we are keen to promote STEM areas (particularly maths) more widely and SMASHfestUK seemed a fun and engaging way to do it. I think it is great to get a link between arts and sciences as it helps show the creativity of STEM disciplines which traditionally may have been seen as dull and boring. The collaboration aspect enhances this and makes science types like myself look at things very differently, which is a good thing. It was rewarding to see my students working with young people and promoting maths. SMASHfestUK's strength is its fun and interactive nature. It does a very good job of promoting STEM disciplines in a very creative way. I hope it has had a positive impact.' **Prof Alison Megeney, Professor of Mathematics at Middlesex University School of Science and Technology.**



SMASHfestUK2016 attracted a young BME audience



3.3 SMASHfestUK 2016 audience profile

SMASHfestUK was targeted at under-18s, particularly those who are BAME.

The table below shows that SMASHfestUK succeeded in attracting a very diverse audience:

Young audiences at SMASHfestUK by age and ethnicity

Age	White	Black African	Pakistani	Mixed Heritage	Black Caribbean	Chinese
5 -7	28%	17%	17%	11%	6%	
8 – 11	27%	33%	-	20%	-	
12 -15					100%	
16 – 17		40%		40%		20%

“a really fantastic opportunity - it’s a great way to get kids involved in science. SMASHfestUK is free which is important in an area with a lot of poverty and where kids get limited exposure to opportunities. This has a knock-on effect because it means as kids’ progress they can’t recognise opportunities or have the skills to know what to do even when opportunity is facing them – and they are unsure how to engage. They don’t see past secondary school so it’s good for them to meet university students and to see that ‘I could do this too.’ Kids could relate to SMASHfestUK events as they were right ‘in their face’ so they could understand the environmental issues. They had fun and could input and realise they could affect their own community when negative things happen.’

Carmel Britto Chair of Greenwich
BAME Forum and LPF kids club

SMASHfestUK attracted more girls than boys

	Male	Female
Adults	27%	73%
Children	38%	62%

Although a gender split amongst adults was expected as there are more women present as carers during holiday time, there was no specific reason for the under 18 gender split. It is proposed that the narrative aspects of the SMASHfestUK experience, might appeal more to girls and this is the subject of further research

‘It inspires my daughter that science is fun, is artistic and is for girls’. Parent visitor



The Matilda effect is a bias against acknowledging the achievements of women scientists in history whose work is attributed to their male colleagues,



...it was the backdrop for a new play “Cosmic Jives” which was created, commissioned and produced by SMASHfestUK in 2016 and featured a young black female protagonist



‘Mothers need to know their daughters could be happy in a career in engineering. Girls need to resolve the conflict between self-identity and STEM identity in order to see STEM as offering careers ‘for people like me.’

***Not for people like me? Under-represented groups in STEM:
Professor Averil Macdonald, South East Physics Network, November 2014***

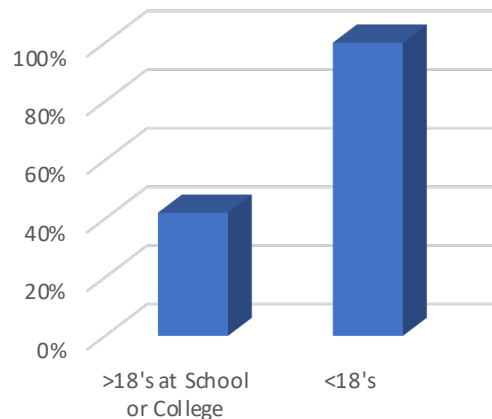
*‘It’s all about the girls and science’
Parent visitor*

SMASHfestUK 2016 Schools Enrichment Programme - Testimonials

Impact of schools programme

10% of attenders were told about the Festival by their school: 5% came following a visit by the SMASHfestUK team to their school.

Might your SMASHfestUK experience make you consider STEM studies or careers?



Influencing choices about the future

42% of people at school or college said the Festival may influence their choice of subjects to study or work opportunities.

When looking at responses from young people just under 18's, 100% said the Festival had prompted them to consider choices in science subjects.



'Seeing the whole school aged 6-11 captivated: the behaviour was great as they were 'transfixed' by the exciting show. It is certainly not like this for all assemblies / shows (in my opinion). They were certainly inspired and curious to find out more and enthused and keen to visit the free show during the half term break.'

Baring Primary School* Deputy Headteacher:
SMASHfestUK Assembly.

**BAME pupils from Black African and Caribbean heritage make up over three quarters of this school, half have a first language other than English. White British pupils account for 20%. 24% of pupils are disabled or have special educational needs, The proportion of pupils eligible for free school meals in local authority care is above average.*

'As a teacher the benefit of SMASHfestUK is livening up the subject - making it more fun and interesting at primary level. The Festival is also important as it gives local children an opportunity to get out and learn in a fun way (and for some who might otherwise be in their bedroom/ house all day staring at a screen...) I hope for some children SMASHfestUK may have helped them in their job aspirations - I would like to do that'.

'Thanks for the assembly and since we came back I have lots of children telling me about the festival over half term and how great it was. They really enjoyed it and I can say for most that was the only fun thing they did over the half term'.

Headteacher at a Deptford primary school that hosted a SMASHfestUK assembly

SMASHfestUK 2016 Young Explainer's Programme

New opportunities for young people: Young Science Explainers

In 2015 the audience skewed younger than planned. The Young Explainers came out of the user experience design iteration for 2016 as a way to engage older children and young adults.

'It's important that SMASHfestUK is in Deptford because there's a lot of gentrification and new development. What was a 'bad' area is being sorted out and it's great that there are events like this that bring a chance to people who wouldn't usually engage. Young people liked how the Festival was on the High Street, with games and outdoor activities and they could come in and enjoy themselves. They don't see these sorts of things in the rigid environment of school and they can't explore these sorts of ideas. I enjoyed explaining ideas to children and parents and I learned a lot of new things that you don't usually put together in the conventional sense. The arts make it all more creative and putting things together in different ways reveals the overlaps. For people who don't engage with science it hooks them in and makes them want to find out more.' **Tyreese Hines, 17**



SMASHfestUK Awards 2016

theengineer.co.uk

ENGINEER

GaaTech.

Category: Young Innovator – Engagement Initiative

Sponsored by **Renishaw**

SMASHfestUK Survival Village and Young Explainer Programme

Middlesex University, University of Greenwich, The Refinery, Telfscot Primary School, Invicta Primary School, Baring Primary School, Lucas Vale Primary School, Kender Primary School, St Mary's Lewisham CE Primary School, Rathfern Primary School, Woodcroft Primary School, Roe Green Junior School, St Thomas More Catholic Primary School, Conway Primary School, Discovery Primary School and Royal Greenwich Trust School.

“The Engineer” Collaborate to Innovate Award for Community, with Deptford Primary Schools

In 2015 the audience skewed younger than planned. The Young Explainers came out of the user experience design iteration for 2016 as a way to engage older children and young adults.



PRESS RELEASE

National award for the festival which uses a disaster theme to get young people re-engaged with science

An innovative festival which uses a virtual natural disaster scenario to reignite the interest of young people in science subjects has won a prestigious national award.

SMASHfestUK, a collaboration between the University of Greenwich and the University of Middlesex, is a festival held in Deptford, creating exhibitions, arts events and experiments linked to an impending earth-destroying natural event as its central theme.

This week [November 29] the project was awarded the top prize in the Science, Technology, Engineering and Mathematics (STEM) category of the National Co-ordinating Centre for Public Engagement's bi-annual Engage Awards.

National Co-ordinating Centre for Public Engagement (NCCPE) ENGAGE award for STEM public engagement 2016



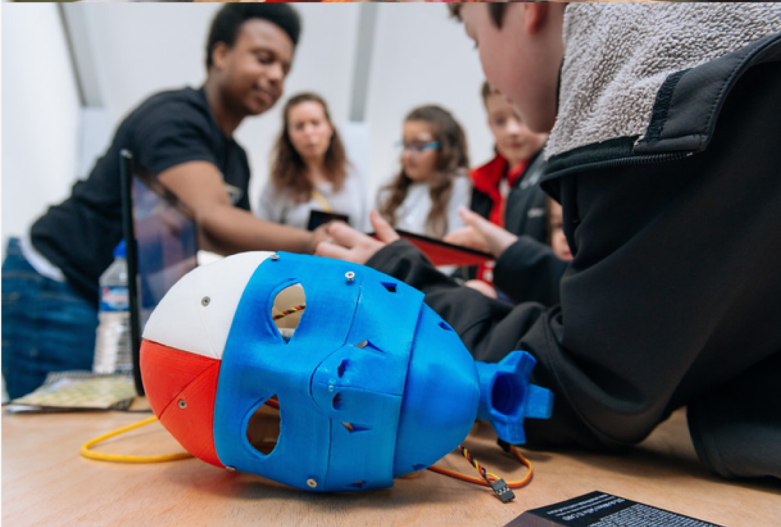
SMASHfestUK 2017 “Supervolcano!”



SMASHFestUK 2017 was located across two sites in Deptford town centre. The Deptford Lounge hosted six volcano and survival-based activities across the five days of the February half term. The Deptford Lounge is a well-known community venue that is open and accessible to the local population of Deptford. The SMASHFestUK 2017 activities drew in an additional 32% of visitors to the Deptford Lounge across the week. Robert Condon, staff member at the Deptford Lounge, commented,

“SMASHFest was absolutely brilliant! It is hands-down the best thing that I have seen in the library so far. It certainly brought in lots of interest and people to the library. The whole event was well thought out and appealed to children (and adults) of all ages”





SMASHfestUK 2017: “Supervolcano!” - Brochure

SUPERVOLCANO 2017

SMASHfestUK



FREE!

Half Term

A BIG ADVENTURE for all the family - Comedy, music, performance, arts, crafts, science, engineering, games, activities, experiments...

Deptford Lounge

Albany, Deptford

Information:

13-17th February

16th & 17th February

<http://www.thealbany.org.uk/>

10-4pm

10-4pm

SMASHfestUK

PROGRAMME

smashfestuk.com



WELCOME & INTRODUCTION

SMASHFESTUK

Welcome to SMASHfestUK 2017: Supervolcano
We're delighted to be returning to Deptford this year with SMASHfestUK - a glorious, crazy 5-day FREE festival. It's a mash-up of comedy, games, art, music, den- building, storytelling and much, much more for all ages.

Last year SMASHfestUK 2016: SOLAR STORM was a huge success, entertaining nearly 2000 people over the course of February half-term. The feedback from you was that you wanted us to come back again, so we have. Even bigger and better than before.

SMASHfestUK was founded to encourage young people to interact with science, engineering, technology, maths, design, theatre, art, performance and music all at the same time in a way they might not usually experience. We devise all our events around a big story. Unbeknownst to Deptford a Supervolcano is bubbling under Lewisham and things are going to get hot. SMASHfestUK explores how to survive when the world explodes and is smothered in ash. Come along and help us use science and creativity to solve this catastrophic problem!

EVENTS WILL TAKE PLACE AT BOTH THE ALBANY AND DEPTFORD LOUNGE.

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SMASHfestUK 2017: Key Facts

- **2676 visitors** attended SMASHFestUK 2017 an **increase of 41%** from 2016
- **30 Young explainers** were recruited from local schools, colleges and youth groups and trained in public engagement and safeguarding. **50% increase** from 2016.
- **32 apprentice engineers** from the Royal Academy of Engineers were recruited and trained in public engagement and were able to support participating academics, industry outreach workers, artists and performers in delivering high-quality public engagement . **100% increase** from 2016.
- **20 volunteers** were recruited to support the operational team and engage with the public.
- **3276 children** were engaged in SMASHFestUK **outreach workshops** across **12 primary schools** in the Lewisham and Deptford areas.
- **10 universities** were involved in planning and delivering STEM engagement (Middlesex, Greenwich, Goldsmiths, OU, UCL, Sheffield, Birmingham, Imperial, The University of South Wales and Kings College)
- **4 museums** contributed to the event (National Maritime, Royal Observatory, Horniman and Science Museum)
- **58 researchers** from academic backgrounds and industry participated in planning and delivering events for SMASHFestUK 2017 (15 were trained in public engagement by SMASHFestUK prior to the festival).
- **46 activities** were provided across the two venues (including kid's comedy club, science theatre, rap and folk smash-up, a specially commissioned play 'Rupture', Escape the Volcano live maze adventure, a virtual reality volcano experience, make a volcano, volcano stories, volcano graffiti, spectroscopy in a suitcase, map making, robot rescue, Neon mountain animation, volcanologists, microbe spotting, den building, first-aid volcano survival centre, water purification challenge and biomass fuels, Maths and engineering structures and samba band, science buskers, a stone explorer walking tour and more).
- **1 record-breaking super-volcano!** 60,000 watched our world record attempt on-line and over 110,000 connected through online activity in total.
- **Built participation** and developed relationships with a diverse and rich range of stakeholders (Including: GLYPT, The Lewisham Young Advisors Group, Equality Lewisham, Lewisham Young Mayors Office, Stephen Lawrence Centre. Lewisham Arts Education Network).
- **Over 6000 individuals** had SMASHFestUK experiences in 2017. **80%** of these were **local to the Deptford/Lewisham area**.

SMASHfestUK 2017 – Audience Testimonials

I did the immersive Montserrat volcano experience - listening to the kids reveal their volcano stories made me ponder and imagine that I was there. I learned about volcanoes on The Moon, Mars and Venus and pancake volcanoes and how to make instant poetry with mixed random words from the audience. Female adult, SE8, Deptford Lounge

There are not many opportunities in Deptford for kids (that are affordable), we visit the Horniman museum a bit. The kids club struggle to find affordable things to do in the area (we have upwards of 35 kids mainly from low-income families) - £2 is max limit and transport can push costs up. Female, Kids club organiser, Deptford Lounge)

I learnt that volcanoes can be hot or cold in space. How to make a rocket fire. How to turn dirty water into clean water. How to make elephant toothpaste! Female adult, SE8, the Albany



“Any comments or suggestions to make SMASHfestUK better?”

“NOTHING IT IS PERFECT!”

It will attract families of all races, classes and status' to interact together. The library is a safe environment for my son.

Female, SE6, Deptford Lounge

I learnt so much. How to make fire (three things), what temperature water freezes - how to change water into ice with a smash. Using a battery to light a fire ... so much! Female adult, SE4, Deptford lounge

Salma Afzal @SalmaAfzal_ 15 Jul 2017
Popular with the audience- inventions especially Titan the robot @SMASHfestUK #SuperVolcano @mediamuseum #bradscifest#SMASH#bradford



1 1 3 ...

Salma Afzal @SalmaAfzal_ 15 Jul 2017
Science is fun @SMASHfestUK Come & predict the volcano #SuperVolcano @mediamuseum #bradscifest



3 5 ...

CHICKENSHED Theatre ... 13 May 2017
Today we are #SUPERVOLCANO! #TalesFromTheShed are very excited to be at @SMASHfestUK today!



2 ...

RAF Museum @RAFMU... 13 May 2017
RT @SMASHfestUK: How do we escape to the sky after a #Supervolcano? Aircraft! Catch @RAFMUSEUM 11-1pm at free #Colindale festival today



SMASHfestUK 2017: Media samples

THE ENGINEER

NEWS IN-DEPTH OPINION JOBS SEC

Earlier this year, residents of Deptford in South East London – one of the UK's most deprived communities – faced up to a terrifying, and, thankfully, fictional, scenario: the impending eruption of a super-volcano that threatened the very survival of humanity.

With the clock ticking, a group of young people and their families worked alongside visiting engineers, scientists and artists to plot a strategy for survival; to figure out how they might help rebuild society after this catastrophe; and to explore the role that engineering would play in this effort.



News Shopper

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News

2nd February 2016

SmashfestUK combines disaster theatre, arts and science for young people in Deptford this February half term

By Jim Palmer



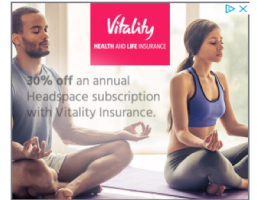
Last year's Smashfest in Deptford. Picture by Bogdan Maran

0 comment

Deptford was nearly wiped out by an incoming asteroid this time last year and now it is facing potential devastation as a solar storm threatens to wipe out our electrical infrastructure.

That's the premise behind Smashfest, which returns this half term with a mash up of science, tech, maths and good old fashioned entertainment.

Dr Lindsay Keith was inspired to create the event after being thrown a surprise mini festival for her 40th birthday at a pub in New Cross Gate. Around the same time, she was reading a report about younger people from poorer backgrounds no longer aspiring to get into science.



Most read Commented

- Transfer rumours from around the Championship; Pompey star wanted
- Storm Brendan blows down tower block scaffolding onto Orpington road
- 'Greenwich Park Revealed': £5m grant set to transform iconic London site
- Video shows armed police arresting men over knife murder in drug dispute

TimeOut

LONDON

ENGLISH

ESPAÑOL

TICKETS OFFERS THINGS TO DO RESTAURANTS BARS & PUBS FILM THEATRE ART MUSIC

SMASHfestUK

Things to do, Exhibitions

Time Out says

SMASHfestUK are hoping to pique peoples' interest in science, technology, engineering and maths, but they don't want to be boring about it. They're using interactive installations, music, film and participatory art themed around super volcanoes to get people feeling scientific. All activities are designed to teach science by stealth, so fun comes first. Events take place at both The Lounge Deptford and The Albany theatre. All events are free but advanced booking, via [The Albany website](#), is required in some cases. Visit the [SMASHfestUK website](#) for more information.

POSTED: WEDNESDAY FEBRUARY 1 2017

SMASHfestUK 2017: Supervolcano!

Matthew Tosh @MatthewTo... 25 Jan 2018
This time last year I was building a volcano for @SMASHfestUK. I had no idea where this would end up taking me... #EarlyMan
matthewtosh.com/news/2018/01/m...
1 8 13

SMASHfestUK @SMASHfes... 26 Jan 2018
Replying to @MatthewTosh
And what a #volcano it was! So lucky to have #earlyman geniuses - you @MatthewTosh & @jimparkyn - working with us @ #smashfestuk last year!
flickr.com/photos/3054223...
flickr.com/photos/3054223...
1 1 2

SMASHfestUK @SMASHfestUK
Replying to @SMASHfestUK @MatthewTosh @jimparkyn...
How @MatthewTosh created our stunning #indoorvolcano at #smashfestuk 2017 #supervolcano
youtu.be/iNH54yRZnRM

An indoor volcano?
youtube.com

6:40pm · 26 Jan 2018 · Twitter for iPhone

Open Twitter Analytics

1 Retweet 2 Likes

How to Build an Indoor Volcano – The Movie, can be found here

<https://www.youtube.com/watch?v=iNH54yRZnRM&feature=youtu.be>



Guinness Record Attempt, viewed globally
by 60,000 viewers
<http://bit.ly/SMASHfestUKSupervolcano>

Guinness World Records was live.
about 3 years ago ·

LIVE: Trashcano eruption at Smashfestuk! We're in London to witness an attempt at the largest liquid nitrogen model volcano. Got an bubbling, explosive science question? Post it now in the comments

1.7K 115 shares 59K views

Like Comment Share

Comments Up next

Most relevant

Guinness World Records · 0:00 Thanks for watching everybody, from our host Lindsay and Dr Nate

Like · Reply · 2y · Edited

Like · Reply · 2y

37

Write a comment...

SMASHfestUK 2017: Schools Enrichment Programme



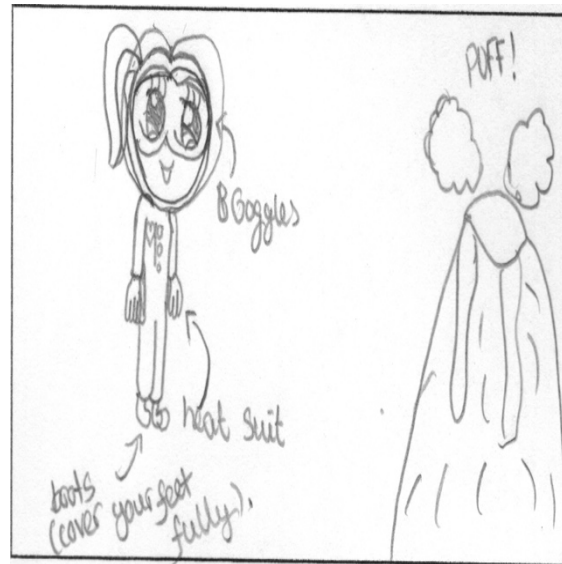
Esther Lie @Esther_lie_ 6 Jan 2017
HURRAH! :) So excited to deliver more explosive outreach... @SMASHfestUK #SuperVolcano

Tidemill Academy @TidemillAcademy
Mimosa class thoroughly enjoyed becoming volcanologists today and creating erupting volcanoes with @SMASHfestUK We had a LAVA fun. KT

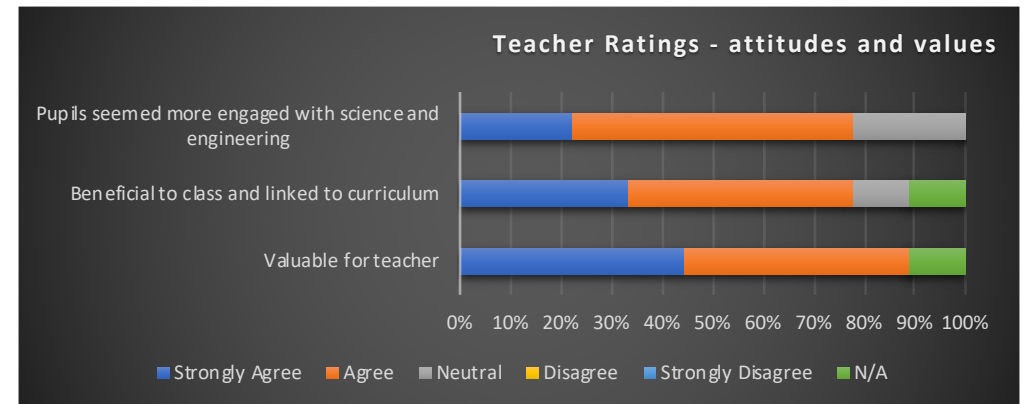


"The hands-on approach was very engaging for pupils. Dressing up as a volcano helped them to learn features of a volcano"
(Teacher, Tidemill Academy)

School outreach was undertaken across 9 local primary schools in January 2017, prior to the SMASHFestUK festival. The outreach engaged 3276 children. SMASHFestUK worked with 5 schools that had not had a SMASHFestUK experience before.



"They learnt the key features of a volcano, they were able to see volcanologists at their job, to have a go at being a volcanologist - the dressing up was hilarious" Teacher, Invicta School



"I enjoyed watching the excited faces of the children and they watched their bottles erupt" Teacher, St Mary's Primary

SMASHfestUK 2017: Young Explainer's Programme

There were two principle targeted volunteer groups that SMASHFestUK drew upon, young explainers and volunteers. 30 young explainers were recruited from young people aged between 16-25 from local schools, youth groups and colleges and universities. In addition, 32 apprentices from the Royal college of Engineers were recruited as young explainers to support the survival village and other events on the day.



**Orlando Miller, 19 years old,
College student**

"I met Alex from the university of Middlesex and that was fantastic, because he does robotics. So, it was great for me to meet him and discuss his course"

"from the beginning, I was already interested in networking and trying to create exposure for what I was doing, but what happened was that times ten! Not only did I meet interesting people who were in the same room as me - the guy from the museum asked me to come along and present a workshop over the summer and I was actually asked by some of the parents if I would come and do workshops in their school and they'd pay me as well"

Orlando plans to go to University after college to study Robotics. Although this was always his ambition, meeting Robotics academics at SMASHFestUK has provided him with more information and contacts that he can pursue.

SMASHfestUK 2018 “Flood!”

This report will present the evaluation of SMASHfestUK’s 2018 half-term festival FLOOD! The Festival utilises a narrative theme to immerse hard-to-reach children and adults in activities that aid in STEM learning and encourage creativity. This year’s theme was Flood!,

“What would happen if the Thames burst its banks and Deptford become submerged? How would we survive? How could we escape? If Deptford turned into wetlands – what would we live in and what food would we live on? If we got into serious deep water and the whole earth was under threat, could we find another home somewhere in SPACE?”

SMASHfestUK use this narrative as a tool to motivate adults and children to explore and immerse themselves in a multitude of STEAM activities that follow the general theme. Split over two venues, centrally located within the community, SMASHfestUK provided STEAM based activities that included kids’ comedy shows, science themed theatre shows, interactive exhibits, science street performers, science experimentation, maths and engineering structures, STEM demonstrations, craft activities, computer programs and a virtual reality experience. Contributors from eleven universities, museums and academies presented activities (including representatives from, The Flood Hazard Research Centre, University College London, The University of Greenwich, Middlesex University, Kingston University, Queen Mary University of London, The London school of Hygiene and Tropical Medicine, The University of Sheffield, The Royal Astronomical society, The Royal society of Chemistry and The National Maritime museum). SMASHfestUK are enthusiastic about the community being involved in the running of the festival so they work with hard-to-reach teenagers from local schools and volunteer groups to design and facilitate some of the activities across the festival. They also recruit local volunteers to support the running of the festival (this year, some of these were from ‘Heart and Soul’ a disabled creative-arts community group).



SMASHfestUK 2018: “Flood!” Brochure



WELCOME & INTRODUCTION

Welcome to SMASHfestUK 2018: FLOOD 12th - 16th February 2018

We're delighted to be returning to Deptford this year with **SMASHfestUK 2018: FLOOD** - a crazy, glorious, 5-day **FREE** festival. It's a mash-up of comedy, experiments, games, art, music, den-building, storytelling and much, much more for all ages.

This year - we've heard that Deptford is at risk of **FLOOD!** What would happen if the Thames burst its banks and Deptford became submerged? How would we survive? How could we escape? If Deptford turned into wetlands - what would we live in? What food would we live on? And if we got into seriously deep water and the whole Earth was under threat - could we find another home somewhere living in space?

This year's activities include interactive science sand-pits, games, demonstrations and experiments, a sensory room, virtual reality space tours, a murder-mystery court case, a game of infective detectives, den-building, variety performances, opportunities to "meet the mosquitoes", build your own hologram, our inspiring, family-friendly play, Cosmic Jives and much much more. As usual, **everything is FREE** (although your free tickets can be reserved for performances, talks and shows) - **all we need is YOU!**

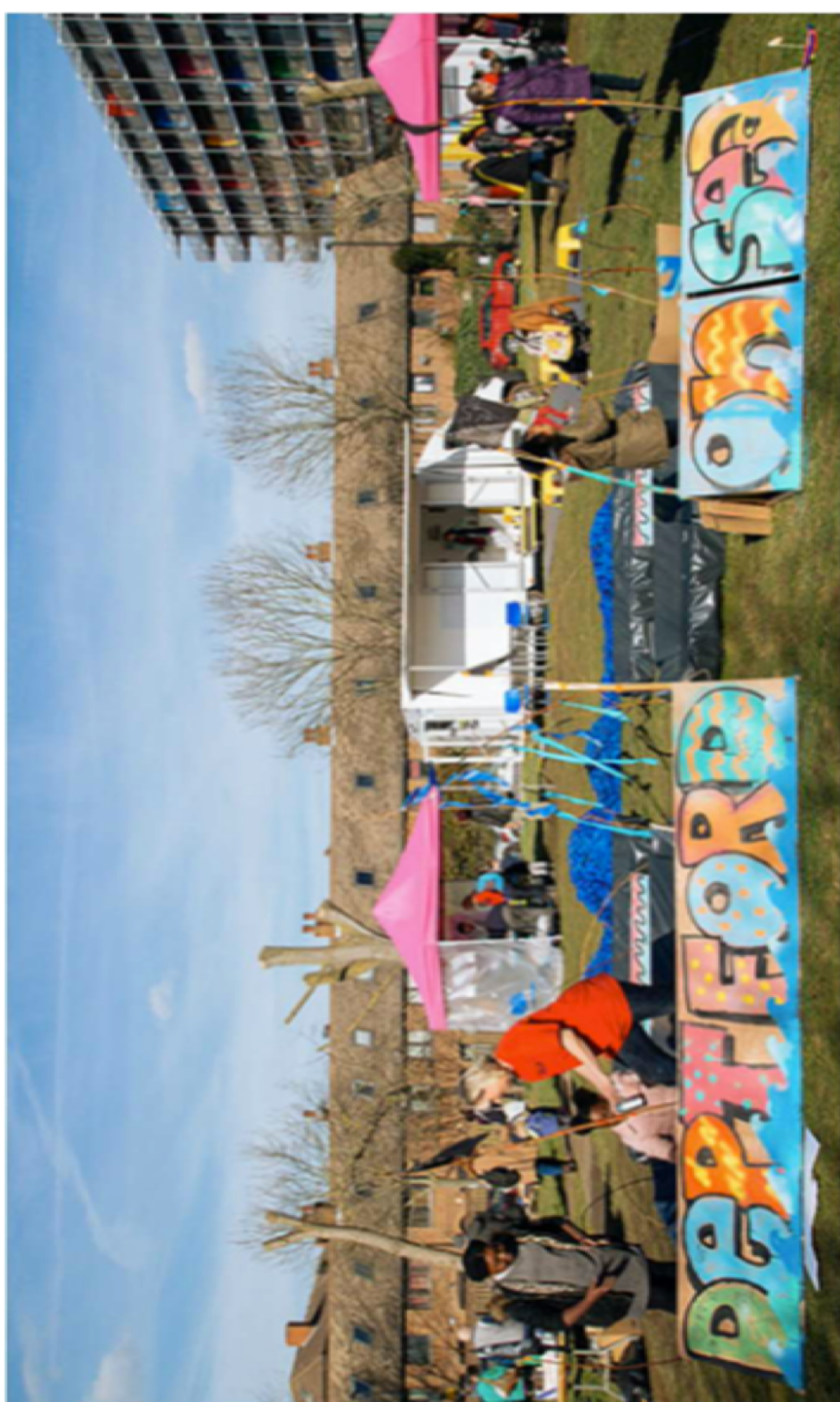
Last year, **SMASHfestUK 2017: SUPERVOLCANO** was a huge success, entertaining nearly 2000 people over the course of the half-term holiday. We're back for 2018, even bigger and better than before!

SMASHfestUK is a STEM/Arts organization, festival series & movement founded in 2015 with the aim of widening participation & increasing diversity (gender, ethnic & socio-economic) in STEM & the Arts education and professions, & increasing social inclusion in neglected communities.

Events will take place at:
• Deptford Lounge 12th - 16th FEB.
• The Albany 15th & 16th FEB

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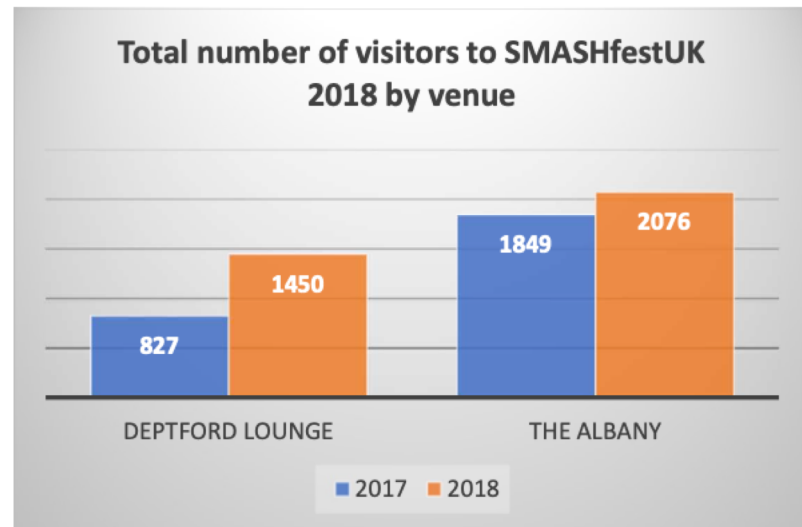
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SMASHfestUK 2018: Key Outputs

“The manner and facilitation that SMASHfestUK use is so effective for the local community. This is a free event, so it is great that it is accessible and engaging for the kids making it a fun-day out for the family. Because they are making or doing things themselves the children have a personal investment with the arts and science because it is tangible – they can take it home.

Being free is so important, because people in this area **really struggle**”



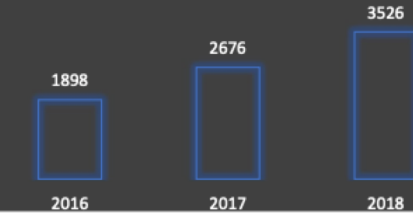
Robert Condon (Library staff) suggested that not only did SMASHfestUK draw in over 50% more visitors than they would normally attract over half term, he also commented, “SMASHfest was brilliant last year and just as good this year! The organisation was excellent, and the exhibits held the children’s attention. It would be great to host SMASHfestUK during all of our school holidays”

3526

Visitors
Attended
SMASHfestUK
2018 FLOOD!
STEAM
FESTIVAL

The number of visitors to
SMASHfestUK has risen each year

□ Total number of visitors to SMASHfestUK



11

Universities
and
Academies
collaborated
with
SMASHfestUK
in 2018

SMASHfestUK
recruited over

60

volunteers
from the local
community and
from partner
universities to
help deliver and
facilitate the
festival

29

Young-Explainers from
areas under-
represented groups in
STEM participated in
designing and
facilitating activities at
the festival

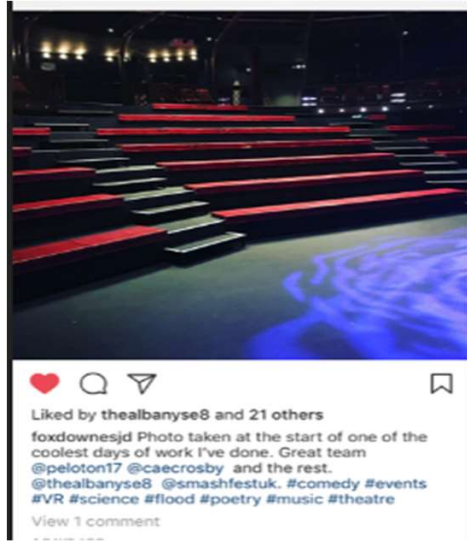
49% of all visitors to
SMASHfestUK 2018
Flood! were from
**minority
ethnic groups**

(currently
underrepresented in
STEM post-16)

SMASHfestUK
attracted more
**female children
and adult visitors
than male**

96% of adult
visitors rated
SMASHfestUK
2018 Flood!
Excellent or
Good

SMASHfestUK 2018: Social Media



SMASHfestUK 2018: Social Media 2



Anna Woolman
@anna_wool

Cosmic Jives at @SMASHfestUK was amazing! I wasn't expecting to almost cry at the end...

16/02/2018, 16:03

1 Retweet 1 Like



LPF Kiddies Club @LPFKiddies... · 12h
#tbt to our club children's very first @SMASHfestUK experience in 2015 we loved it so much that we have been back every year since.

What will inspire you to become
#STEMHEROES



Carmel Britto @carmel_britto · 34m
The innovative approach by @SMASHfestUK to engaging not only young people but their families as a whole into the world of STEM is priceless. The interactive community learning approach has sparked and fuelled many of our @LPFKiddiesClub children's interest in the world of science

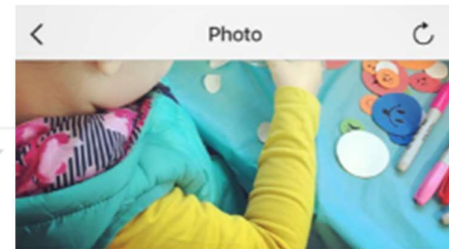


Rachel Nelken @rachelnelken · 11h
Me & kids had such a great time @SMASHfestUK @TheAlbanySE8 today, blown away by all the imagination and creativity, science & art colliding in a massive maelstrom of fun! Big congrats to @SMASHfestUK team & volunteers and all our amazing @TheAlbanySE8



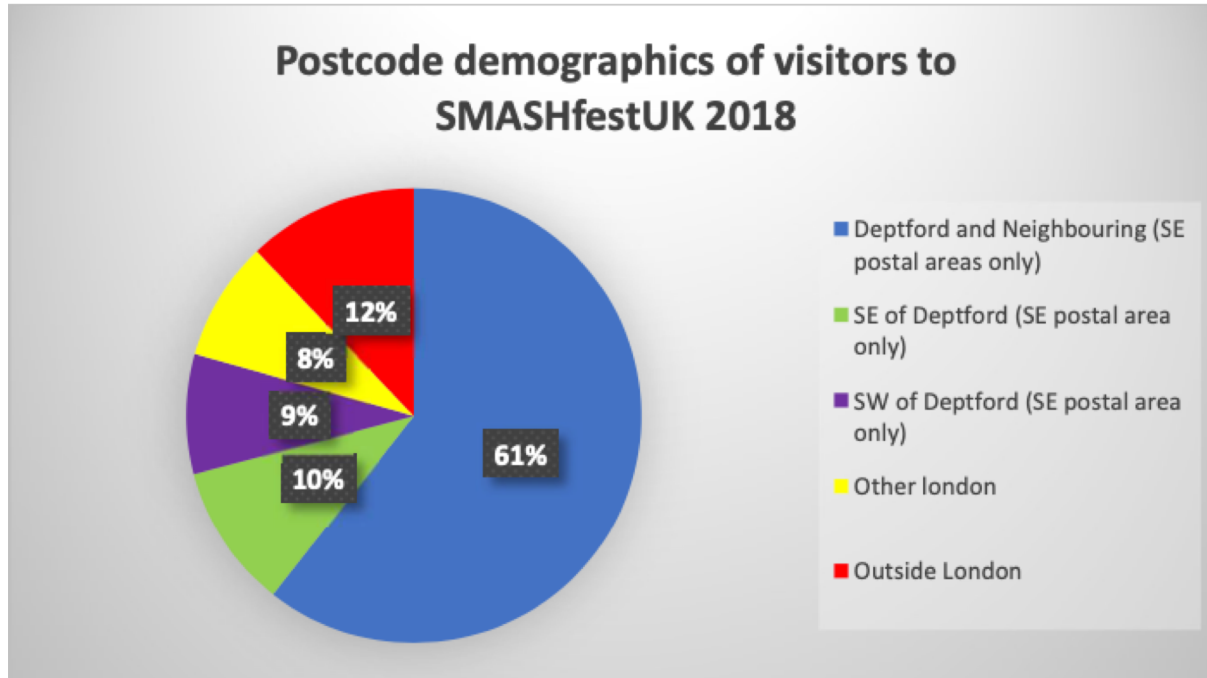
Amelia B. Kyazze
@abkwriting

Very inspiring and fun day spent in Deptford @TheAlbanySE8 for @SMASHfestUK. A great diverse mash-up of art, comedy, science and tech. Tomorrow is the last day- don't miss out! Thanks to the artists and scientists and volunteers! Really special family day.

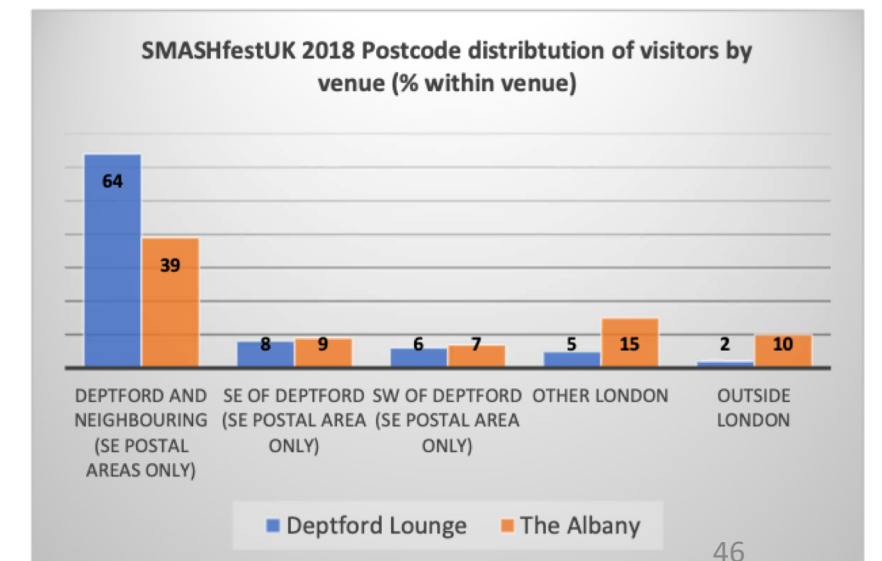
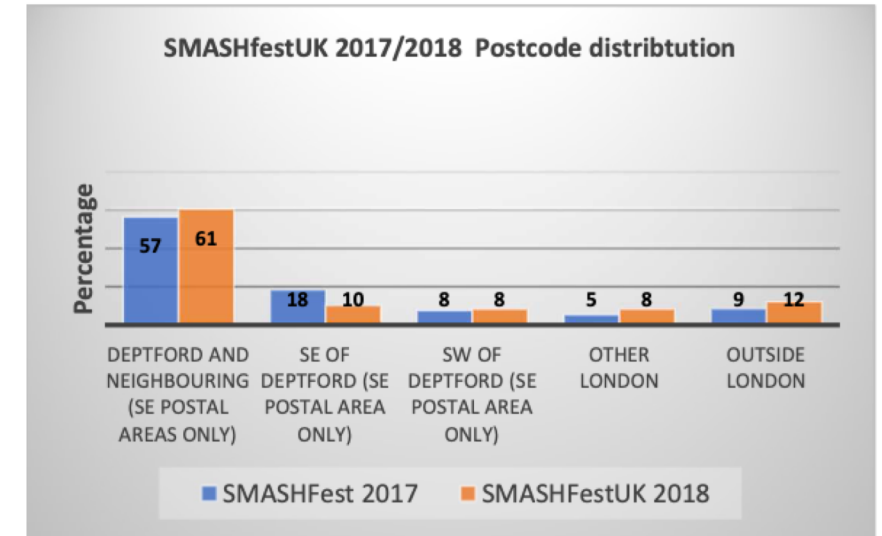


Liked by babydaytripper and 13 others
ispywithmylittlondoneye This morning we went to the library to do some science and art activities. There were lots of friendly grown ups in green t-shirts who helped me make an eco house out of cardboard, showed me how a river works in a sand tray, how rain falls out of clouds and cut off a bit of a plant so I can grow my own basil plant in a jar! 🌱🌿
Mummy: This morning we arrived nice and early at @deptfordlounge for the last day of @smashfestuk - a free festival run by a STEM/Arts organisation that comprised experiments, demonstrations, craft activities and much more for kids of all ages. Both children really enjoyed it - not only did they come away with things they'd made but Boodle now understands river erosion! I love how much London has to offer my children 🙌
#daysoutwithkids #kidsinlondon #selondon #stemeducation #scienceforkids #smashfestuk

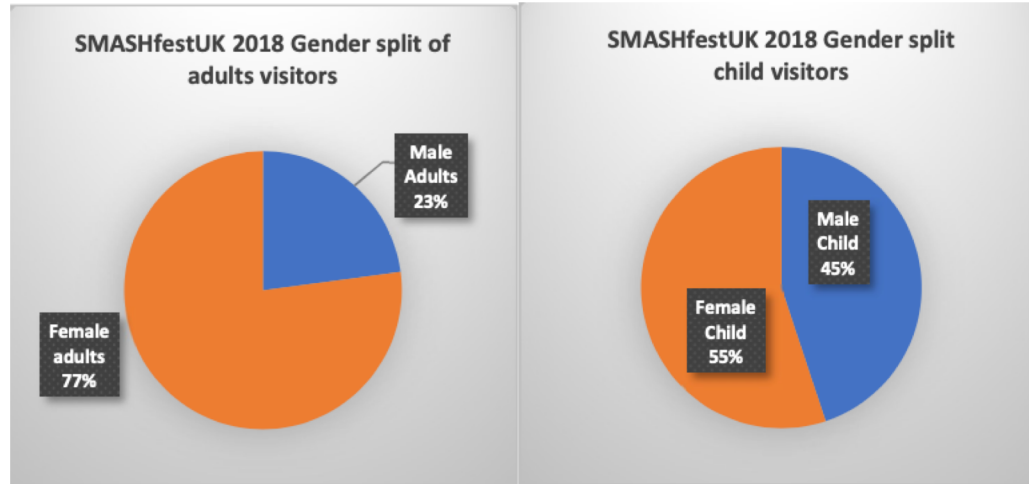
SMASHfestUK is Hyperlocal



“Successful” media attention after the 2016 event reduced the ratio of local Deptford visitors to those from post-codes in more affluent area in 2017. A return to local only marketing reversed this trend and once more showed an increase in BME and local postode visitors.



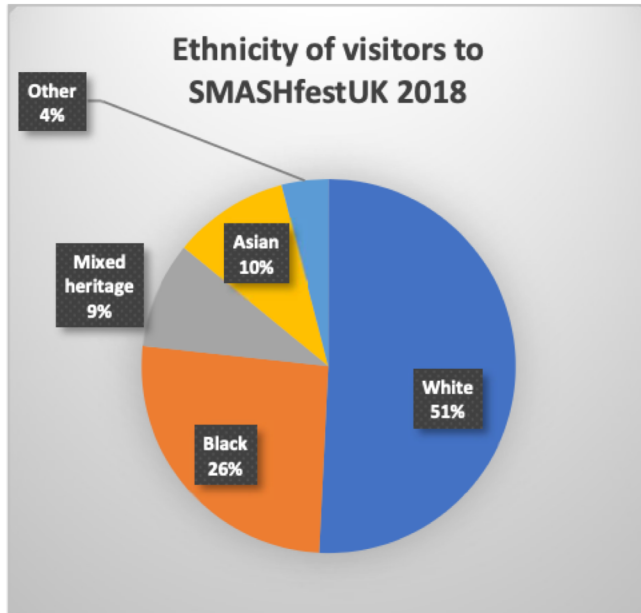
SMASHfestUK consistently caters for female visitors



The trend first observed in 2015, that SMASHfestUK attracted a higher percentage of girls than boys, continues. This is the subject of further research but is thought to be due to the narrative, inclusive and representative approach



SMASHfestUK consistently attracts BAME visitors



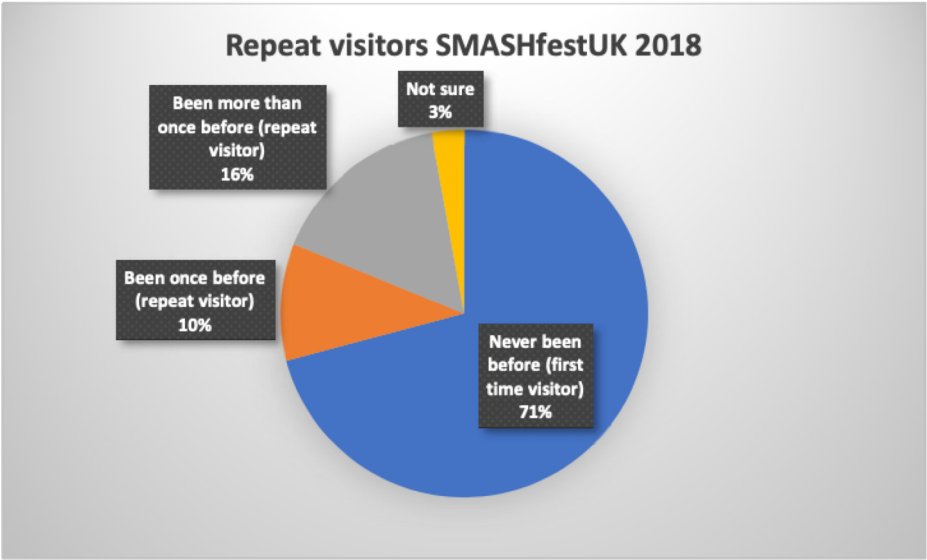
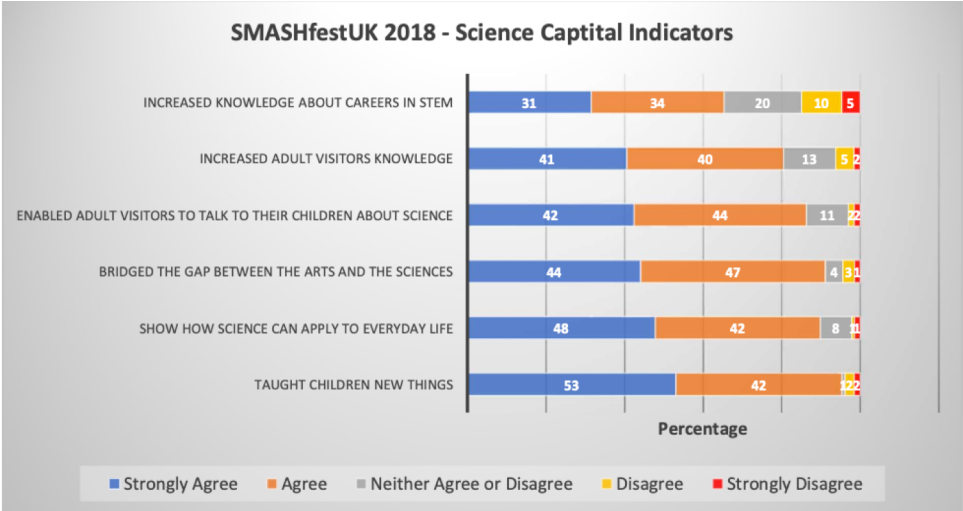
Ethnicity	SMASHfestUK 2018 (all)	Government data for DEPTFORD (from 2015)	Government data for LEWISHAM (from 2011)
White (British and European)	51%	50%	53%
Black (British, African and Caribbean)	26%	29%	27.2%
Mixed Heritage	9%	7.5%	7.4%
Asian	10%	11%	9.3%
Other	4%	3%	2.6%

49% of the visitors to SMASHfestUK are BAME. This is a higher proportion of almost all science festivals, museums or centres. While this is partly due to the hyperlocal approach, it is also due to the reduction in other barriers learned since 2015. It should be noted that 49% exceeds the BAME local demographics (38%) and exceeds the usual BME representation for events in the same venues

“For people of colour, the yardstick (for science and engineering) is very much white males – so to see women and women of colour in leadership and in engineering roles here - they are being influenced by that and it is a big confidence boost. In the UK we are always seen as the minority – ‘other than’ – and I don’t want my children to feel this. So, I feel that encouraging children of colour and of the female gender is really important. I was going to do engineering at University, but when I went to the open-day there was only one other woman there and the rest were boys – to be honest, that put me off and I chose social science in the end instead. So, I know how much representation matters in making choices and seeing yourself in a role” Female Adult Visitor

SMASHfestUK builds new audiences and Science Capital

Swamp activities in the Deptford Lounge



Modelling how Deptford would flood if the Thames burst its banks



SMASHfestUK: Stories are effective

“The activities give them an insight into how they would cope if there was a Flood and what could be done. It is educational and covers all age groups.

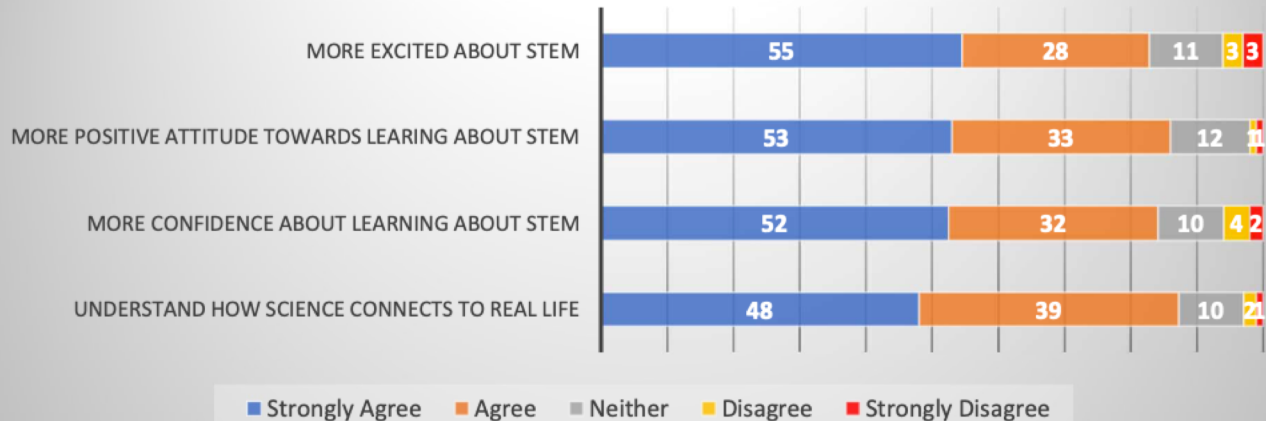
The issue of growing things after a flood, we had a discussion about back at the kid’s club, because all of the soil would be flooded – so you could grow some plants just in water – the children were really interested in that and it started a really interesting conversation with them.

One child in particular, who is only five, was really interested in the river exhibit and came back with their parents. We also went through the SMASHfestUK brochure with the children and talked about what activities they might be interested in. They want to visit The Albany on Friday to do raft building”



SMASHfestUK changes attitudes

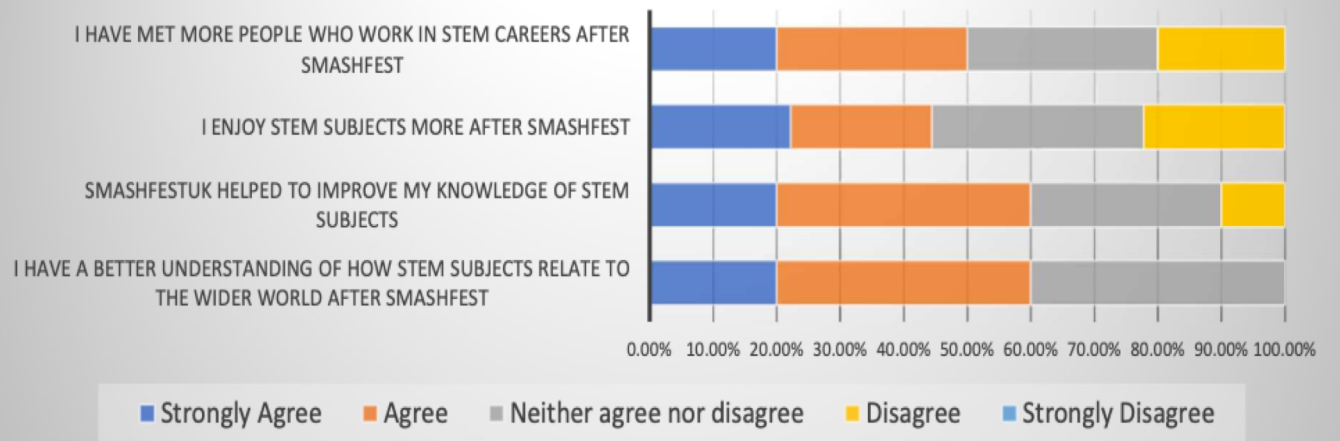
Childrens' ratings for the impact of SMASHfestUK 2018



Children were most confident that the events at SMASHfestUK helped them to understand how science can connect to the real world (87% agree/strongly agree). They also felt that SMASHfestUK had given them a more positive attitude towards learning about STEM (86% agree/strongly agree) and that participation had made them feel more confident about learning about STEM at school (84% agree/strongly agree). 83% of the children agreed or strongly agreed that the events had made them more excited about STEM.

"I just realised that if we introduce STEM subjects to these children especially the very young ones. We can inspire them to be more interested in them. We can let them know that these subjects shouldn't be things that we grow up to avoid or develop a fear for. Rather, it can be fun and knowledgeable".
(Female Young Explainer, Aged 16)

Impact of Being a Young Explainer (n=10)



SMASHfestUK 2018: Science Capital

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Bridge the gap between the arts and the sciences	Deptford Lounge	46.7	44	5.3	2.7	1.3
	The Albany	41	50.8	3.3	3.3	1.6
Show how science can apply to everyday life	Deptford Lounge	50.6	39	7.8	1.3	1.3
	The Albany	44.3	45.9	8.2	0	1.6
Enabled me to talk to children about science	Deptford Lounge	47.2	38.9	11.1	1.4	1.4
	The Albany	36.7	50	10	1.7	1.7
Increased adult knowledge	Deptford Lounge	43.7	32.4	16.9	5.6	1.4
	The Albany	36.8	49.1	8.8	3.5	1.8
Taught children new things	Deptford Lounge	53.4	42.5	0	2.7	1.4
	The Albany	52.6	42.1	1.8	1.8	1.8
Increased knowledge about careers in STEM	Deptford Lounge	35.2	31	15.5	14.1	4.2
	The Albany	26.8	37.5	25	5.4	5.4

The chart shows that the 2018 respondents were more confident that SMASHfestUK was able to increase their knowledge of STEM careers, teach their children new things and helped them to be able to talk to their children about science than in 2017. The table below presents the 2018 figures across the different venues.

Increasing science capital is predicted to increase likelihood of uptake of STEM studies or careers in later life, which can in turn increase social mobility and reduce repeated cycles of poverty.

SMASHfestUK 2018: Attitudes and Values

A few of the comments related to emotional responses or attitude changes. One comment referred to the Virtual Reality space experience,

“This was a reminder of how much I felt in awe about the universe movement of planets/comet around the sun”

(Female, 36, Brockley, VR experience)



“Science is Awesome!” (Female, 39, Ramsgate, Visiting The Albany) A further comment indicates that the adult had noticed that the children were engaged in the activities,

SMASHfestUK: Attracting representative staff and volunteers is important

"I think that events like this are really good because they encourage children to be interested in science and engineering at home – so it is important to have these events. We like this so that she can learn from it. She has enjoyed it. We have enjoyed it at home, but mainly arts activities and making things – so I suppose engineering – but these events are great because you get to talk to real scientists who can tell you the answers straight away, rather than googling it like we do! The river bit is really good, my son was really engaged in that and the lady was excellent at explaining it to him. These events do a lot for us, they provide an opportunity for the children to engage and because there are activities and people to facilitate - the children are really gripped!"

SMASHfestUK Evaluation Data Tables Follow

Table 1: Attendance numbers 2015-2018

2015	2016		2017		2018	
Albany/Deptford Lounge	Albany	DL	Albany	DL	Albany	DL
453 + 754 (Mon + Weds) Total activity tally. Largest single activity attendance each day = 120	1048 ticketed event tally	850 activity tally	1450 (2days) Individual entry count +/-20	827 (5 days) Individual entry count +/- 20	2076 (2 days)	1849 (5 days)
	Notes on attendance: 30% attended SMASHfestUK 2016. 25% had been to a similar event. A minimum of 45% (excluding potential overlap in the profiles above) had NEVER attended an event of this type. NEW AUDIENCES.					

Table 2: Postcode and Demographic data

2015 Sample size = 57	2016 (sample size = 101)	2017 (sample size = 144)	2018 (sample size 290)
Postcode data			
<p>SE8 = 33 (27%) SE14 = 20 – 16.5% SE10 = 11 – 9% SE4 = 10 – 8% SE13 = 9 – 7.5% SE2 = 6 – 5% SE23 = 6 – 5% SE15 = 5 – 4% FK2 = 4 – 3.3% SE6 = 4 – 3.3% SP2 = 4 – 3.3% SE16 = 3 – 2.5% SE3 = 2 – 1.7% SW16 = 2 – 1.7% SW4 = 2 – 1.7%</p> <p>27% within SE8 - where venues were based 70.5% within SE8 and contiguous districts 87.8% within SE8 and two adjacent districts 92.8% within Lewisham</p> <p>99.5% SE London Postcode</p>	<p>68% Lewisham 10% Greenwich 4% Hackney 3% Southwark 10% London Other 15% Outside London</p> <p>81% SE London Postcodes</p>	<p>SE8 = 21% SE4 = 14% SE14 = 12% SE6 = 7% SE10 = 5% SE13 = 4% SE26 = 3% SE12 = 3% Kent = 3% SE2 = 2% SE17 = 2% SE18 = 2% Scotland = 2% N/A = 3% Other = 1%</p> <p>75% had SE London postcode</p>	<p>SE8 = 25% SE4 = 11% SE14 = 11% SE10 = 7% SE13 = 6% SE6 = 4% SE23 = 3% SE12 = 2% BR1 = 2%</p> <p>BD22, BG14, BR3, CT11, DA1, DA15, DA7, E14, E3, E6, GL6, IP16, LE8, ME1, N17, N5, NW10, NW11, NW2, NW5, RN10, S8, SA62, SE1, SE16, SE18, SE19, SE2, SE21, SE22, SE25, SE26, SE28, SE3, SE9, SL9, SW18, SW3, SW9 and WC1H were represented in smaller numbers</p> <p>80% with SE London Postcode</p>

Ethnicity of Attendees

2015	2016	2017	2018
Ethnicity			
<p>'Asteroid Emergency' Show data:</p> <p>Monday – 50 audience total, 10 BAME = 20%</p> <p>Wednesday 60 audience total, 30 BAME = 50%</p> <p>Average BME representation in audience = 36.36%</p>	<p>Young audience BAME proportion: Age</p> <p>5-7 = 50% 8-11 = 53% 12-15 = 100% 16-17 = 100%</p> <p>Total under -18 BME representation = 75.75%</p>	<p>Total visitor BAME proportion: 39%</p> <p>Breakdown between Deptford Lounge and Albany below</p>	<p>Total visitor BAME proportion: 49%</p> <p>Breakdown between Deptford Lounge and Albany below</p>

Gender of Attendees

2015	2016	2017	2018
Gender			
'Supermarket Sweep' Data: 175 total – 94 F, 81M 54% F 46% M	Overall: M:F = 27%:73% Under 18: 38%:62%	Overall: M:F = 38%:62% Under 18: 27%:34% Adult: 11%:28%	Overall: M:F = 36%:64% Under 18: 45%:55% Adult: 23%:77%

Audience Engagement Data

2015	2016	2017	2018
Engagement			
<p>71% had no response to the question regarding the item they 'least enjoyed'.</p> <p>The most enjoyed was 'Survival Supermarket Sweep' followed by two stage shows</p>	<p>97.28% +ve overall.</p> <p>Cosmic Jives (98% +ve) Survival Village (FCA) DIY Planetarium (DLFCA)</p>	<p>Children: Overall, 98% of the children rated the SMASHFestuk 2017 experience as either 'excellent' (76%) or 'good' (22%).</p> <p>Adult: 96% rated SMASHFestUK 2017 Supervolcano! as Excellent (71%) or Good (26%).</p> <p>Rupture (FC -98% learned new) Escape the Volcano (3rd FCA) World's Largest Cryovolcano (2nd FCA)</p>	

STEAM

Previous STEM informal engagement experience

No data.
Reason for attendance:
42% were 'word of mouth' or
'library user'

45% had not been to a similar
event previously.

71% had not been to a similar
event previously.

