THE ROOMS

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Book Kernel
http://bookkernel.com

Contents

The Rooms is a celebration of all the work that REACT has supported over the last four years and the extraordinary community that's behind it.

The range of work is breathtaking; 53 new kinds of digital products and experiences – everything from a swing that sings along and lights up as you play with it, to a transmedia documentary project that tells the stories of the 350,000 women and 25,000 men who were sterilised in Peru in the mid-1990s. It felt important that we opened up this work and the processes that went into making it to a public audience, and frame the projects in a playful way that was in the spirit of REACT.

The Rooms concept grew from a process of imagining a home for all of these projects; we dreamt of a **Library** which could uncover the future of the book, where technology means more than e-books and self-publishing. We used this space to question how the way that we read, write, and experience literature is changing; there you could meet those at the forefront of this including Circumstance and *Writer on the Train*, James Atlee. In **The Bedroom** you could examine your own desires and imagine how experiencing them might be different if we were able to craft our own *Intimate Objects*. **The Playground** and **Garden** collected our play projects on display in a series of teepees, Wendy Houses, and den systems. Children, big and small, can play games, tell stories, and watch films in ways that they never have before. *Fabulous Beasts*, *Lightbug*, and *trove* were among the groundbreaking products featured.

The Rooms was held across a collection of buildings that used to be the old Bridewell Police Station, Firestation, and Magistrates Courts in Bristol's City Centre. This was the first time that the whole site had been used together for one event in this way, and we were thrilled to invite audiences into the extraordinary space.

17 rooms to explore and a full programme of workshops, talks, and screenings to sit within them.

We hope very much that you enjoyed your visit.

Book Kernel, how this book was made

The book you're holding was made on day 1 & 2 of The Rooms festival. It's now yours. Within a fortnight of attending.
This is what Book Kernel does.

For The Rooms, we were asked by the AHRC and the REACT team to get the book to you after the event – at Book Kernel, we're flexible. But, usually, what we do can be put like so:

We make a book of your event and get it to you before that event is over.

This book represents the intersection of the physical and the digital. We have texts and tweets in here. We've purposefully left space at the back of the book for you to write your own notes. This means that each book can become unique.

Each book is certainly a test as we strive to make our service better and imbue our books with the life and feeling of the event. For this book, we're using our new, standard text size – not too big, not too small – that we think is far more accessible than our previous books so that our impact and diversity are greater. Unlike some publishers, we'd like your feedback on how it looks, feels, and what you do with the book as a physical object.

Our books make a lasting legacy of any event or conference and people take them not to be archived but to be re-read.

We love making books and we want to make books for you too. If you want a book made at your event or conference, contact ben.gwalchmai@gmail.com.

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Our thanks to the brilliant RIFE journalists – Antonia, Cai, Grace, Jon, Sham, & Yero – and their editor, Nikesh Shukla, for working with us to make this book. You can find their work at **www.rifemagazine.co.uk**

Born out of a partnership between Bristol Youth Links and Watershed, Rife magazine is a new magazine for young people, written by young people. Covering film, music, art, culture, social issues and politics, Rife is everywhere covering everything Bristol has

to offer its young people through all your favourite channels, like YouTube, Twitter, Facebook, Instagram, blogs, Vines and more.

Look out for our content creators around the city as they make videos, write articles, livetweet events and take snapshots of Bristol youth culture. We're also on the hunt for budding journalists, vloggers, bloggers, filmmakers, photographers, and designers to join our team.

Watershed has been commissioned by Bristol City Council's Bristol Youth Links to develop a virtual youth service. Rife magazine forms part of the commission and was born out of consultation with young people and Bristol Talent Lab, a week of intense workshops that brought together Bristol's most talented young digital content creators.

Our commitment is that whatever we do will be designed and shaped by young people.

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How many events have you been to this year?

How many conferences?

How many times have you been called a delegate?

I could count the number of festivals I've been to this year in a void. So too could I count the amount of conference papers I've kept from the six I've been to.

There is a way that would mean I'd kept those papers because they wouldn't have simply been papers – they'd have been a book.

Book Kernel makes a book of an event and gets it to that event before the event has ended.

It's the intersection between traditional publishing and contemporary social-media practices: it gives both an ongoing e-book and a take-home-physical book that collects the social media and on-the ground response from the event and is professionally edited by the Book Kernel team. The e-books can then be offered in .mobi, .epub, and .pdf and for those that choose to take a book home, there's something magical about having a reference and memento that you've contributed to. There's something even more magical about having it before you go home.

There's always a question of legacy after an event – how long does the media produced get read, viewed, or shared?

Do you, like me, file and eventually throw away so many loose sheets of paper?

Would you do the same with a book?

I wouldn't.

Especially one that I'd been a part of making – Book Kernel enables co-action in the creation of books. The book of the event is a lasting legacy of your time there and the resources at hand.

The system itself highlights the iterative nature of writing and making books because there's always a cut off point for the physical book but it can also present iterative versions of events – e.g. a 1p.m., a 4p.m., anytime, etc – as it has done at a translation event before.

This also highlights the co-operative nature of Book Kernel: comments you make on the system or on Twitter can be in that time-slot's edition.

Place yourself at the last conference or course you went to or took.

How many notes did you take?

Now start the day or term again in the knowledge that all the speakers/lecturers talks and profiles are already available online and that a professional editor is taking notes that can be viewed in real time.

Doesn't that feel better?

In a perfect world, every time you go to an event – a conference, a festival, a course, any gathering of any sort – you'd only have to take the notes you feel absolutely relevant to you. More than that, you'd be able to see what people are talking about online and directly reference the text/speech/whatever they're discussing. This leaves you free to enjoy and be stimulated by the conversation and debate without the concern that you're missing anything.

The Book Kernel team work with local printers.

We place an importance on these local relationships because they encourage high quality from a local business, mean faster delivery times for an event, and make the publishing process clearer for anyone interested. We work closely with our printers before events to ensure that all of us have a feel for how the book will look, what are the needs of the event and what is the best we can make it.

That's precisely how we think about books: we address the digital and physical needs of contemporary readers, using digital technology and analogue legacy to make the best book we can.

– Ben Gwalchmai, Managing Editor of Book Kernel

Thursday

Thursday evening, 6-8p.m., saw friends and family invited to experience The Rooms. Here we present some of the pictures and stories.

Flying books, a book cave, a book rainbow, a book train, and even a book hive. Paper definitely isn't dead….Warning, you will probably shout out "woah" in excitement, shortly to be followed by **The Library's** creepy shooshing.

- Shamil Ahmed

Memory of Theatre

Sitting in a chair I feel like I'm actually here. Listening to the story and hearing the applause kind of feels like…someone is whispering in your ear during a show.

I'm in a seat but I'm also in a seat?! The stories about the [Bristol Old Vic] theatre are almost more interesting than what the people were watching. I haven't necessarily felt that welcome in theatres. They're a bit middle-class and inaccessible but walking all over a tangible version makes me feel powerful and like I own it.

- Grace Shutti

The Bedroom

Surreptitious observations taken approximately 1.5 metres from outside the doorway.

Couple A (female, male):

Male remains behind female at all times as she assesses the objects. Both murmur occasionally; noises peak when they see something they find intriguing, and would obviously like to try out. They stay longer in the room. The male seems to silently ponder the merits of anal penetration toys.

Couple B (female, male):

Both notice room and walk in confidently without looking at the signs. Both bend over the same exhibit to peer closely at the text, heads very close together. Hands remain in pockets throughout. At one point, the male removes his hand from his pocket to gesture at a particular object, but swiftly returning it. The pockets on both the male and female's coats strain from the pressure of their buried hands. They leave together.

Couple C (female, female – perhaps mother and daughter):

The older woman leads into the room; she turns around and leaves instantly.

– Jon Aitken

The Newsroom

One of my favourite spaces so far. I feel like I'm in a film noir movie. Or maybe sitting in on one of Nucky Thompson's meetings from Boardwalk Empire. The mise-en-scene is on point!

– Yero Timi-Biu

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9p.m. – The sitting room session of talks and provocations on the Thursday evening of The Rooms was a cabaret of stories from the REACT network.

> 'This is a time for provocation rather than reflection, for calls to action rather than evaluation.'

Topics might be:

- the future of a speaker's field

- a compelling anecdote about work
- a provocation for us to think differently about an issue the speaker cares about
- something the speaker is passionate about
- something they think it's important for the audience to know about

The talks ran from 9 – 10:30p.m. on Thursday 5th November. Everyone had a chance to visit the installations beforehand and had a drink or three so the atmosphere was both relaxed *and* lively.

The setup was a sitting room style – think standard lamps, soft seating, and low lighting – basically a cabaret in your living room.

Each talk lasted no longer than five minutes.

All talks were in a simple format: only one person per slot and no AV or presentation materials.

Just the speaker, a mic, and a spotlight.

Our RIFE journalists covered the evening and present their responses in the following pages.

– Antonia Odunlami

The Garden is giving me *Avatar*, enchanted forest vibes. Magical swings and plastic grass. Happy faces and led lights. A man-made heaven on earth.

Down into **The Cemetery** lie dark and nihilistic parting notes. **The Theatre** space isn't as inviting as I'd hoped. Well-spoken voices fill this space with anecdotal stories. On the stage I whip the headphones on and advance as though I'm going to drop a hot *96 Bars of Revenge*. Nobody's watching me though. This isn't a theatre I feel comfortable in – not like my home theatre. No red velvet curtains or red seats in the auditorium. No gold chandelier.

The Cells. *Breaking Bad* vibes. Skull and crossbones galore. Mad test tubes but zero steralisation: like an old-fashioned hospital with no hygiene practices.

Bedroom. A bed and intimate sex "toys" but don't look approachable to "play" with. Even in privacy. Non-playful colours. Not clinical but not playful either. Informative and exhibitive, not inviting you to pick it up and simply touch it; in the words of Sarah Dickens, "touch is trust". Photos can be altered, videos are fleeting, and sound is easily drowned out, so we are becoming more and more cynical and disinterested.

You're never really taught *how* to play with your toys as a kid, other than to "play nicely". What does this mean for a sex toy? You can play with them alone but you can also share the experience, but does the interaction have to be between two or more bodies or could intimacy purely with an object count? Digital technology now enables us to incorporate the physical into our experience of the digital realm. So what if we printed out 3D sex toys made out of skin. Maybe that'd be too close for comfort or maybe that's what cultural assumptions encourage us to think, either way it's certainly the direction we're heading in. We need to think of digital media in relation to relationships, sex, and intimacy.

Library. If only books moved like this when my Mum used to tell me to read as a child. Never been more mesmerised by a hardback. Creaking and flapping, the words and pages toss and dance amongst themselves *craving attention*. They're flying but inviting me on the flight. Spreading themselves above me and asking to be told in all their glory: wish I could read you all at the same time.

Sitting on the train I'm feeling really calm and reflective, observing my counterparts. People walk past me sat in the corner of this train like I'm invisible or part of the furniture.

The Study is filled with academics in their element. Historical storytellers. Retelling these events as though they lived through the events of their ancestors.

– Cai Burton

What happens when everything breaks?

Alex Fleetwood was sat in his meeting. He had been preparing for months. He was sitting there in his pressed suit – his spiel memorized and his game working. He was on fire. The meeting had gone well. He had been showing his new game "Fabulous Beasts" and they loved it. It was going about as well as he could have hoped.

Next he was about to show them how the technology worked. This bit was easy. The technology worked. It just did. He relied on it working and knew that it would. It was like relying upon your clothes to stay together whilst wearing them. There was nothing to do, just hold the technology in one hand then make dramatic hand motions with the other hand.

Perhaps he had been a little too dramatic with the wrong hand. It was hard to describe what his hand did, it just kind of…did a thing. He watched as the technology tumbled to the floor, almost in slow motion. It collided with the floor and for a second he just stared. Quickly, he reached down and snatched it up. "Turn it off and on again," he thought to himself, staring down at the red light on his creation. "Check the usual things – you can make this work", he thought.

He couldn't. The meeting went a little downhill after that.

Later, he was working at his friends trying to stitch it back together. He needed this game to work. Next week, he was showing the game to Tim Schafer and he couldn't mess this up. Tim Schafer was his hero. Whilst he was sat working on it – equipment in one hand and the other working a keyboard talking to the experts back home – Tim Schafer walks in. Alex's eyes drop.

'Hey there! What's that you're working on there?'

'Uhhhh, it's a game…'

'Wow, can I get a look at it?'

'I can't show you sorry, it's broken.'

'Ahh.'

Tim Schafer leaves the room.

Alex looked down and realized that he'd been in nothing but his underpants for the whole time. It was one massive bad dream. Only it wasn't. He wasn't wearing just his underpants but he might as well have been.

Everything breaks. It may not have been exactly then, but in his time since, Alex came to realize that what he did for a living was to make broken things. He only made them less broken over time. We've become so used to presenting finished ideas as a spectacle that, actually, when something breaks it becomes more exciting and interesting. We are moving from spectacles into actions and perhaps that is more valuable than any finished thing.

"Making things is hard."
"Making things is hard."
"Making things is sweaty and hard."
"Making things is hard."

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'Oxymoronic' – Serious Games' Janet Jones

One of the things that Janet questions is that if journalists are told to tell stories, then why can't they play games? She's grown accustomed to adjusting the titles of her presentations depending on her audience. If she's talking to journalists, then she's talking about what games can bring to journalism and if she's talking to gamers then it's what can journalism bring to games.

There's a resistance to these new ideas and what happens when they come together that's similar to when television was introduced. At first, people used to be uncomfortable with the idea of the news being on television. They thought it would take away from the seriousness of journalism.

These days, we all watch the news on TV and we're beginning to receive the news through games. Through sites like Buzzfeed and Vice, Janet's children learn about serious issues – as well as which type of dog they are – through play. Her kids are learning so much through inherently playful means and what's exciting about this is that it opens so many doors for the future of news.

Mixing journalism and play might be compared to mixing oil and water – seemingly oxymoronic – but what happens when they mix. The answer is: I don't know. And that's what is so exciting. The future of games and journalism can become so intertwined that it can create something completely new.

What happens when journalists do more than tell stories?
What happens when journalists play?

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'Our Business cards' – Tom Abba

Fuck eBooks, reimagine reading.

We are making a book and an eBook. This is not going in the eBook. [Ed.: Oh yes it is.]

To think that the future of reading is restricted to digital media is shameful. To think that we can become so closed-minded that we funnel our creations onto one platform is disheartening.

But publishing isn't dead.

The feeling of paper in your fingers and the smell of words on page. The authenticity that you can feel from a book could never be classed as dead. You can feel life within these pages.

Print can do so much that digital can't and not in a way that sticks it's tongue out at digital. In a way that grabs its hand and goes "Come on. Let's go." With a daring smile and a flash in it's eyes.

Print and digital media is not some imagined war between two sides spurred on by a Guardian columnist – it's a cloud of creativity. These two ideas can do so much together and each is powerful in it's own right.

So fuck eBooks.
Publishing isn't dead.
Print can do shit.
Simply reimagine reading.

– Grace Shutti

Quipu testimonies: a lesson in imaginative leaps

Hospitals are a safe space. We go there when we don't feel well. We go there to be fixed when we're broken. We go there for help.

This isn't the reality of the women and men in the Peruvian Andes who participated in the Quipu testimonies. They were involuntarily sterilised in the 1990s by a programme their government still claims was completely voluntary. However, either the procedure wasn't explained properly or they were forced into it. For them, the waiting room brings nothing but fear and confusion.

Historian Matthew Brown – a self-proclaimed technophobe who has just learned to tweet – wants us to understand the reality of their suffering beyond our digital lives. We've all signed online petitions or tweeted our opposition to human rights violations, but it can all be impersonal. So the curators of *The Quipu Project* wanted to facilitate an imaginative leap.

They wondered if in the 'hubbub of the media nonsense' we could shut up and listen to these people. But how to show reality to people obsessed with the virtual? By building from the ground up using real stories. Forget tweeting, Facebook, Periscope, Instagram. This is a real room, with real voices whose lives were changed.

The Rooms team replicated an Andean health clinic in the Waiting Room, making the visitor imagine what it would be like to wait for the operation. The process of listening to testimonies they recorded themselves allows us to 'imagine and cross boundaries from digital, social, geo-political divides to tell the powerful story.' Half a percent of citizens were affected, and this is finally giving them a chance to tell their story. The Waiting Room graciously gives us a realistic atmosphere where we can listen.

I can't tell whether I imagined the smell of antiseptic or whether it was really there. At the doctors I feel white coat syndrome at most but the projections on The Waiting Room walls made me squirm with

discomfort. The red crosses – a sign of protection – seemed unsuitable considering the stories I was hearing.

I listened to a testimony of a woman who was held down by four people in order to give her anaesthetic. When she woke up, the procedure had been done. I got to leave the Waiting Room unscarred.

Most of the victims just wanted their ordeals to be acknowledged and to be compensated for the physical difficulties they had experienced since. Many of them haven't been able to carry anything or move with ease since.

Brown tells us this project could cost £4 million but if it leads to any form of justice and reparation, the funds spent on this imaginative leap was money well spent.

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'How to Say No to An Idea' – Katie Day

1. Admit you're stubborn.

Katie admits it. 'I'm just going to leave that' are words that never leave her mouth. She had an idea and came back to it three years later, desperately trying to make it work. She did all the work. She had a good idea and found a market (the funeral industry, the only market that will never go out business).

She even figured out that no one was doing it. There were people who had gone as far as trying but their attempts were poor. She thought, 'I can do better than that' and she tried – really hard.

2. Figure out if it can really work.

She came up with the idea; she looked at the feasibility, their target customer and how they could produce it. Then she realised it was basically impossible. She felt like a failure.

3. Be OK with failing.

'Better a considered "no" than struggling with a misplaced sense of duty.' There's no point keeping a dead idea on life support just because you were responsible for its existence. Let it go.

4. Find a new idea.

When spring sprung in 2014, a new idea did too. She decided to create software that automatically generates your life story. *Protagonist* would create a short film memoir using social media.

5. Be OK with failing (again).

It didn't work. She realised her arts background makes it difficult to identify which problems can be solved by technology and which are just impossible. This one was impossible. Plus she realised if Facebook and Google couldn't do it properly there was no point trying. If it doesn't work, don't spend forever on it. You'll have another idea.

6. Start again. Life is short.

There were so many more things she wanted to do, so she focused her skills and energy where they could make an impact. Out of that came *The Other Way Works* and *The Stick House* – playful theatre that immerses the audience in the story.

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Heart in your hands

Alexandros Kontogeorgakopoulos was part of the team that transformed a Turkish Ney (one of the world's oldest instruments) into a 3D printed version with sensors. *The God Particle* aimed to make it easier to teach breathing techniques for the instrument. The only thing is, Alex hates technology. Not its uses that made his project possible, but the awkwardness that a monitor, or a mouse, or a keyboard brings. In his talk he expressed his belief that science, art, design and technology give us the powers of creation. But mixing his Depeche Mode and New Order vinyl and manhandling his classical guitar, he realised how much he valued the beauty of physicality – using your hands!

Trying to unite the two beyond the imaginary of what computers can be is the hard part. The final product, which personalised digital fabrication, showed that even the oldest of physical things and the newest of technologies could come together without cancelling one or the other out.

Putting the heart of technology in your hands is something that the *Breathing Stone* did too – literally. The stone itself was created to ease stress and anxiety, but before even holding it, everyone who enters with me submits to calmness – white room numb. Suddenly we're all speaking in hushed voices.

Feeling your pulse in the stone and hearing a composition tailored especially to your breathing is as magical as you can imagine. Knowing

that the inner parts of your body you can't even reach is making something go – that's strangely empowering and humbling at the same time. It makes you wonder: we use technology to do things faster or better, but here the focus is on just functioning.

What would happen if we all just slowed down a bit and breathed?

– Jon Aitken

Colourstory by Arthur Buxton

Ironically, Arthur Buxton's *Colourstory* exhibition provides a clean, white canvas on which to project your thoughts having made the journey from the jubilant chaos of the outside. His work is undeniably art, especially in contrast to the projects that surround the *Colourstory* show (all of which mischievously reject this definition and live on a blurrier plane).

Buxton's work invites discussion rather than silence; every piece literally has a narrative to be pondered over. There are no clear conclusions to be made from each – as much as I hate saying this, they are both readable and unreadable.

The respite offered by the lofty gallery space seems to pleasantly surprise visitors, disrupting the smothering, immersive nature of the event. However, the show isn't serious. There is curious delight to be found in all of the work. The process of rendering images into their base elements – and subsequently reworking them into something only vaguely recognizable – results in something pleasurable, seemingly innocent but loaded with meaning.

Buxton's first solo show is both unified in its form and strong. Interestingly, the addition of a live, user-oriented app on site allows the visitor to create their own shareable colour stories within seconds of logging into their social media accounts. Instant amusement in a gallery space feels somewhat unusual but wholly fitting for its location within The Rooms.

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Jon Troyer

Death is no stranger in my life, so much so that I feel like it's becoming my thing. Or at least one of my things. However, unlike Jon Troyer, my own experiences do not make me a Professor of Death. Maybe I should aspire to that accolade.

I looked forward to Troyer's talk because I believe it's important to chat about death, plus I wanted to see an audience feel uncomfortable. I wasn't disappointed.

Questions were immediately raised as to what we all want done with our bodies once we no longer inhabit them; silences were punctuated by jokes that left people laughing a little too loudly as they all turned inwards and realised they're going to die.

There was also a palpable sense of finality throughout the talk, which seemed fitting for the end of the night. In the time that the REACT projects have been going over 1.5 million people have died in the UK. It's a staggering number that I find difficult to process. But what exactly do I mean by "process"? Death is the only certainty in life. It's the thing that unites us. So, why do we need to make a big deal about it? Troyer, I feel, seeks to emphasise the inherent normality of dying and defeat the taboo-like reverence we have placed on it.

The Future Cemeteries project that features in The Rooms invites discussion through humour. Heading there this afternoon I found a mock grave stone with a woman's name written in chalk followed by "Got shit done" as the message she wished to be remembered by. This is the kind of conversation about death that I love and encourage.

Of course death is sad and nobody is trying to deny that but can we alter traditional grieving patterns through digital means? Or are we simply trying to avoid death by prolonging the moment at which our legacy is forgotten?

Troyer emphasises that he chooses to respect and work *with* death rather than control it because, ultimately, '…death always wins.'

– Shamil Ahmed

The vibe I get from The Rooms is that it's basically all your favourite exhibits from all your favourite museums in one place. I'm also convinced that Willy Wonka himself had some input in designing the event, but the funny thing is, the exact two words I'd use to describe Willy Wonka are the same exact two words I'd use to describe The Rooms: mad genius.

4 years of hard work, 53 concepts and 150 stories. What a place. There is absolutely nothing that could prepare you for what to expect as you walk through the big gates. It's a journey that you won't forget and will leave you with a beaming smile on your face.

Day 1 at The Rooms
Breathing room:
Sensor lights guide your path as you walk beneath them through the dark tunnel on your way in, and as you walk through, a bright white room that I can only describe as '…what Hollywood heaven looks like'.

A smiling lady named Rosie greeted me quietly to keep the vibe of the room going as it should be and passed me the 'breathing stone': a stone being tested by the NHS to get some reigns on your anxiety and stress levels. The *Breathing Stone* and the heaven-esque reminiscent ambience of the breathing room genuinely takes you to another galaxy. A galaxy that calms the soul and slows down time. As someone who's heart rate resembles that of Ussain Bolt, I can vouch for it and say the breathing room put me in a good place.

The Library:
The library, like detention in *The Breakfast Club,* has you feeling like someone is constantly watching over you. As you walk in and wow in awe, immediately you hear a loud 'SHOOSH' noise that will stick with you; first in a comical sense but second in a nightmarish sense that might just stick with me for a few nights.

….but let me tell you. It's totally worth it; the decor, the ideas, and concepts are all presented to you in what feels like a very mad dream. The good kind.

Flying books, a book cave, a book rainbow, a book train, and even a book hive. Paper definitely isn't dead.

Book Hive is something you'd totally want in your house. The hanging books lay open a slight whisper and as you wave your hands past the display, they follow your hand motion in a Mexican wave and open wide. Warning, you will probably shout out 'Woah' in excitement, shortly to be followed by the library's creepy shooshing.

The maze:

As you see the entrance of the maze, the first thing that strikes you is how it reminds you so much of that horror attraction you didn't want to enter at that theme park. There was a very long and anxious line pouring out of the dragons cave that was the maze.

Nicky and Gill, who read info about The Rooms prior to coming, found the maze to be their sole attraction to here. (Gill even bought a torch, because she heard it was dark and it "sounded terrifying.")

The maze was spectacular. It gets you to team up in cells of 4 to conquer a tricky puzzle that requires epic levels of decisiveness, trust, and communication. As soon as you walk into the pitch black room, your heart races, but the adrenaline rush that comes with it is incredible. Don't miss it.

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REACT quotes:

'It's all contemporary experience, not just heritage, each project has its own story, it's own journey. Seeing funding form into practice from what someone wanted to explore…'

'I feel like reminding [the creators that] you've invented something, now realise it!' **–** Simon Moreton

Clare Reddington:

'The thing about risk is that watershed doesn't know how to say no, and that's brilliant.'

'I thought that we made magical experiences in REACT, but it's not just the experiences, it's magic people too. We've really made a community here.'

'These things don't exist without the people that come.'

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Sitting Room Sessions:

Dan Efergan:

Dan spoke about how fantasies he'd had as a child didn't always live up to his expectations, something was missing, but that didn't demotivate – it did the opposite. Out of his experiences bore his idea that 'Fantasies *could* be created.' And his desire to create these fantasies could become real, too. He stated that 'We have all of the technology to construct these fantasies now.'

'People say there isn't a place for story telling within gaming, I completely disagree with this.' He then closed by saying that we should keep pushing and take the risk with the new tools to create the fantasy we want to. But that's not the most important thing, the most important thing is to create emotional tales that resonate with us.

Tim Cole of *Mayfly*:

'One of the things that struck me with REACT is that all things are new things and that they are typical bedfellows.'

'They made all things that are digital bring a new use to things that are physical.'

'Thinking about how to unite old beautiful objects [typewriters/ printers/paper] and uniting it with the sleek digital.'

'REACT has taken us somewhere new, but also the old, and how the digital can bring us closer to the classical and work together.'

Mandy Rose went on to say that: 'Things have changed and you [the young generation] have the tools and opportunities to make change and do great things. And REACT does this very very well.' She also described REACT working as a catalyst for conversation and then finished with a very epic call to action: 'Let's be daring. Let's bring together unlikely collaborations between all the skills and disciplines, the times we live in simply require it.' I couldn't have put it better myself.

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In Disney-Pixar's *Monsters inc.*, monsters would enter completely different sides of our planet by walking through doors to different rooms, ironically that is nearly the exact same thing that happens at The Rooms.

Each doorway led to a different story, a different idea, and a different realm. Four years of incredible work has been invested into

53 diverse projects that combine modern technology to devices that we use in our everyday lives or into thinking of ways we could use current technology but outside the box.

These ideas, all weird and wonderful, bring splashes of colour to our lives in the form of performing a service to help us in our day to day challenges, like the *Breathing Stone* or just making life that much more fun like the bio monitor in The Maze.

The work presented here is clear evidence of the risk these inventors took to create a path for the future and it is looking very bright. Right from the get go, the public flooded in with beaming smiles at the exhibit; from just seeing how much there was to do to actually how snazzy the exhibit looked.

After speaking to some of the attendees, there isn't a clear winner as to which area was the crowd favourite. According to practically everyone, there was way too much to see, and that is never a bad thing. The attendees definitely had no idea what was in store for them and what a treat it was.

A lovely attendee by the name of Reese summed up the whole experience: 'I really hope this isn't the last time I go to something like this.'

– Yero Timi–Biu

Over the last 8 months or so, I've enjoyed being an outsider and watching the strange and mysterious ways the Watershed works. Saying 'no' at the Watershed is a rare occasion. It's a place for play, risk, forward thinking ideas, and experimentations. Crazy curiosities that nurture and bring talented individuals, from sound engineers to anthropologists and digital storytellers, into one interactive bubble.

When Clare and Jon say that REACT was four years in the making, (including one year for Kathryn to shake it up) I believe it. I am in awe of REACT's lifecycle from initial concept to final product. No room I wandered into was the same, no art practitioner had the same idea or execution, but there was an underlying theme of community and sharing. From sharing stories about sterilisation in Peru, to OCD sufferers, and even tales on sex.

The 5 minute talks were bursts of provocations. It's fantastic to pick the brains of academics, industry leaders in the arts, and not forgetting the young artists. One of the speakers, Hannah of Play Sandbox said something that resonated with me, 'REACT opened up a world to say mistakes are fine, they are wonderful.'

We live in a society where we're judged on "getting it right". There's no time for mistakes, you have to nail it the first time round. We are not judged on our journeys, the risks we've taken, the time for evaluation and reflection. This isn't the case for REACT. Without the space to take risks, research and develop ideas and findings, I wouldn't have been able to observe the practices of fearless makers, completely stirring things up in the industry, and I commend the Watershed for that. I also commend the Arts Council (who said that REACT is a spectacular success for the UK) for also being risk takers, by believing in the weird and wonderful work of the Watershed.

Observations
20.05: Speech outside
'Technology is worthless without human experience.' – Jon Dovey

Arts council – they want to invest in research and creativity. 'This is a spectacular success for the UK'. What a thing to say about lil ol' Brizzle.

'The creative sector is worth more than the financial sector' – Rick from the Arts Council

'This isn't about KPIs, it's about going on a journey' – Clare Reddington

21.15: Charlotte Crofts

Charlotte is a cinema going academic. She is passionate about the moving image – there's something about going to the cinema, there's something really nostalgic about it. Charlotte also loves the idea of contemporary cinema going – using social media as a spring board for discussion.

21.25: Jo Reid 'Digital Renaissance – The Bristol Way'

Jo Reid started as a computer engineer in the 80s working with Xerox – genius! As the new and wonderful things of the web developed, her insight and passion for giving talent the platform and agency to create evolved – just like REACT. The artistic energy and vision of people coming out in the arts now is so innovative. Jo compares the establishment and growth of the arts in Bristol to the Renaissance. She thinks it might sound pompous but she doesn't deny that it's a really exciting time.

'Bristol is the Florence of the time for the digital Renaissance.' – Jo Reid

On reflection, I see there is so much pride and talent in Bristol. REACT has fundamentally put bristol on the map for risk taking and pushing boundaries. The city is full of weird and wacky artists, academics, practitioners and beyond.

22.05: Ian Hargreaves

Ian talked about his big break as a journalist for the Financial Times. 'Journalism, including community journalism sometimes has to make readers uncomfortable. The best journalism is a balance and a risk. It's not good being a journalist if you want everyone to love what you have to say.'

22.25: Hannah

When Hannah of Play Sandbox looks at her emails and sees the

bureaucracy of it all, she envisages Gulliver's Travels. She gets this image of people bashing each others heads and Gulliver saving the day. REACT brings together these creative people and academic people. REACT opened up a world to say mistakes are fine, they are wonderful. This reduces the amount of people bashing each other on the head.

22.40: Rosie Poebright

All Rosie Poebright's work is about intellect. For her, magic is about the physical and the ephemeral. She feels like we should be using magical experiences for digital storytelling, inspiring people to create their own stories and embody exciting feelings in their work, not just relying on a screen.

Friday: 'Small is Beautiful?' conference

REACT & AHRC presented a free series of talks and panel sessions discussing the method behind the work presented at The Rooms and other UK Creative Economy Hubs.

For the last four years the Arts & Humanities Research Council has invested in four Knowledge Exchange Hubs for the Creative Economy, established to build partnerships between academic researchers and the creative economy. REACT is proud to host the first of four national events that showcase the AHRC Hubs' findings.

The UK economy is built on a foundation of microbusinesses. Supporting less than 10 employees, they account for 96% of all businesses in the UK. These microbusinesses are also the backbone of the creative economy – one of the UK's largest growth sectors. This sector is largely made up by dynamic and innovative small start ups. They play an important role in identifying new ideas to commercialise and create jobs. With the right support, microbusinesses can capitalise on their position to fulfil both their ambitions and potential for growth. Yet investment in this sector is geared towards small and medium sized enterprises (SMEs), and away from the fledgling entrepreneurs in the microbusiness sector. It is here – in the biggest part of the economy – where we see the least development support but it is here that the AHRC's four hubs have had some of their greatest impact.

Small is Beautiful? is a day dedicated to the joy of the microbusiness.

The four AHRC Knowledge Exchange Hubs for the Creative Economy presented findings that show how university research can make an impact on small creative businesses.

– The Landscape for the Creative Start-up

This session delivered a range of provocations responding to a series of questions:

- *What is the climate for the creative business start up?*
- *What are the big issues that impact on new creative businesses?*
- *There is a perception that investment programmes are only interested in you when you have already become an SME – is this true?*
- *How can we celebrate the micro business?*
- *Why is the idea of a lifestyle business regarded as such a criticism?*
- *What roles do universities have in working with microbusinesses?*

Provocations came from:

- Andy Pratt, Professor of Cultural Economy at City University London
- Ian Hargeaves, Professor of Digital Economy at Cardiff University
- Gill Wildman, co-Director of Upstarter: an incubation programme for microbusinesses
- Kelvin Reader, Associate Director of Station 12: a VC investor
- Alex Fleetwood, director of Sensible Object: now launching Fabulous Beasts from the REACT Play Sandbox

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Jon Dovey opened the day by discussing what's to come for REACT and the AHRC – '…this is the beginning of a national dissemination strategy.' Jon also said, 'It's difficult for investors and the state to understand the dynamics of microbusinesses.' That's what the day is pushing to address. 'We have an action oriented wing of the day and a research oriented wing of the day.'

> "We're feeling quite smug this morning: it was a big risk to take" @ProffJon tells #TheRooms plenary & rightly so…it's a big success, this
> — Phil Gibby (@philgibby)

Alex Fleetwood was the first speaker. Alex spoke about his history of making games, being '..small then big and, now, small again'. His new company is a microbusiness but has the potential to grow. His focus is '…allowing smallness to persist in such a way that it creates the right conditions for growth.'

'When you're running a business…and you're dealing with all the things you have to deal with, there isn't time to think about where you want to be in five years time.' Alex talked about how REACT helped more than prototyping, it enabled him to reflect *deeply* on his central practice as a designer and entrepreneur.

'There's something very interesting about being a creative entrepreneur and taking something like that [a game like *Fabulous Beasts*] into business environments. There's usually a point where emotion begins.'

Alex described the way his experiences inspire thoughts for the relationship between how a space like REACT connects to expanding in business. There's still a challenge to reconcile the emotional with the commercial for a project.

Questions from the floor
Jon Dovey: When, and how, will you know it's time to grow?
Alex: We have a few "capital events" that will signify this.

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Andy Pratt started by saying 'The university, creative-economy interface *is not* broken'.

He said there's a view from the government that universities need to be '…kicked up the backside to be more profitable for UK PLC.' He also said that our general assumptions about universities were probably a little bit wrong and we need to think about these things in different ways.

'The thing is, [the] humanities are not like science. …[the] humanities are about creativity and meaning. We need to play to the strengths of the humanities.'

'…value making is the be all and end all. That's what humanities do.'

'Rather than trying to force the creative economy into a science model, we need to think about the creative economy in a different way. …it's not "lost in translation" it's "gained in translation". It's not knowledge transfer, it's a knowledge eco-system. …it's not [about the] individual, it's about the indivudal *and* the collective.'

'We need intermediaries and we need curators – there's a skill involved in that.'

Questions from the floor

Sheila: One of the many paradoxes of the government is that they talk about the idea of encouraging creativity…yet the government is pushing a STEM agenda. China wants to learn *our* creativity but we still push that STEM agaenda.

Ian: When the Chinese President was here the other day, his advisers said they were interested, not in Britain's manufacturing prowess but, its creative industries, financial services, and media industries. …there are forces and patterns of thought which recognise that paradox. It's very important that we get the right response [and the government changes their approach].

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Kelvin Reader, of Station 12, introduced how he sees the funding landscape.

Station 12 helps startups through all the stages and challenges of their growth from VC investing to team-building.

Kelvin says we need to understand *their* business model – the model of the investor. Angel investors take a portfolio approach: when they invest in 10, 1 or 2 might make money. Those 1 or 2 have to return *a lot.* When they invest, they ask 'Can this return 10 times the investment?'

The only way to do that is to invest in high-growth, high-return companies focused on:

- Product – what is the problem you're solving?

- Market – what's the current dynamic and size? The potential for growth?
- Team – does this team have the relevant domain experience? The ability to produce the service?
- Financial – simply, can this be scaled?

The one thing Kelvin would add is: momentum. How much are you, the business, growing?

Kelvin described a few funding streams – government supported and otherwise – that are available but insisted that businesses should meet with investors first.

In the initial stages, businesses '…need to stay lean to get to those metrics that investors and funders are looking for.'

Questions for the floor

Mark Leaver: Could you compare and contrast your venture building strategy with the REACT Sandbox?

Kelvin: In our venture building, we try and align ourselves with a corporate. Every corporate is struggling with innovation. What we do is go to them and say, 'Why don't we form a company to solve that challenge?' They may then take a stake in that. Getting that corporate as the first client is the best step.

Alex Fleetwood: One of the things that's true about REACT is that some are using it as a vehicle for developing a high-growth business but some people are just artists – I think that's, actually, a good thing. It's an interesting question to consider *momentum* for reports…and I don't think it's explored as a key indicator in REACT and that could be an area to look at.

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When Gill Wildman first started working with start-ups, microbusinesses were talked about as "lifestyle businesses" in a disparaging way. She says that view has slightly changed…but not changed enough.

'All of the microbusinesses we see around us do have the potential [to grow] and a lot of them don't – and that's alright. We need an eco-system of microbusinesses.'

Gill says that the microbusiness people she's working with here at The Rooms are fantastic, innovative pioneers of business.

'It's really hard for them now…I'd like to see them have a deeper relationship with their audience rather than trying to please a grant-giving body.' Gill encouraged small grants for small business, developing those small businesses for a region, listening to them deeply to reshape their whole field. 'They're a mixture…making money through developing a range of their stuff. It creates a balance for them.'

Gill says there's a multiplier effect – local businesses put money back into the local area.

Questions from the floor

Andrew: Are there good examples of succesful microbusinesses feeding back into their area?

Gill: It's not common but setting up the infrastructure for that would be the smart thing to do so people have a path.

John [Creative England]: We're now able to recycle *all* the money we've given out [in loans] – it's a way of encouraging good business discipline and a way of encouraging those businesses to think about feeding back into their area…feeding back into the system – in that sense, the money *is* recycled.

Jon: What would a commons for microbusinesses actually look like?

<p style="text-align:center">***</p>

Ian Hargreaves harked back to Andy Pratt's provocation.

Discussing Cardiff University's story, Ian told us about the 2nd Annual Cardiff Convention – an event for a point of reflection on Cardiff's development issues. There Ian and his colleagues talked about Creative Cardiff.

Ian says that Creative Cardiff learned their principles and practices from REACT and another cross-university project – '…the most important factor in my own work for the last 5 years.'

'So what have we discovered in our mapping of the Creative Cardiff economy?'

A whole host of businessses and micro-businesses serving clients from all over the world at all hours of the day. Interestingly, Ian said that they may or may *not* want to grow – not even to micro-businesses or SMEs.

'Everywhere in this ecology of citizen creativity…we observe unrecorded activity. Much of it digital.'

Ian stated that the freelancer is vital to the UK's economy. He's heard *big* businesses telling government that change needs to come from below and government needs to act as an enabler, not forcing things.

'The role of the creative economy needs to be understood as connected to that [city, economy, growth].'

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Jon Dovey rounded the session off with some housekeeping.

– Nurturing New Businesses, Hub Research Findings

In this session the AHRC Creative Economy Hubs will unveil, for the first time, their findings on how universities can best work with small businesses in the creative economy.

Speakers:

- Michael Marra is the Deputy Director of Design in Action, the Dundee-based hub that works with design methods to support business innovation in Scotland.
- Jeremy Myerson is a Co-Researcher at the Creative Exchange Hub, a collaboration between Lancaster & Newcastle Universities with the Royal College of Art. Jeremy is the Helen Hamlyn Professor of Design at Royal College of Art and the first Chair of the Helen Hamlyn Centre for Design.
- Jon Dovey is Professor of Screen Media at the University of the West of England and Director of REACT, the Bristol, Bath, Cardiff and Exeter Hub.
- Andy Pratt is Professor of Cultural Economy at City University London and a senior researcher on Creative Works London, the London based Hub.
- Naomi Jacobs of Lancaster University will chair the session

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Jon Dovey's talk, *Hyperconnectivity – the Joy of Micro*, drew on an ongoing research project that REACT is currently undertaking to map the hub's community, to argue for supporting microbusinesses as part of a network.

Jon reported that the UK economy is built on a foundation of micro-businesses. Micro-businesses, those supporting 0-9 employees, number around 5 million and account for 96% of all businesses in the UK. The creative economy is also a vital part of the process. The Nesta Creative Economy Manifesto calculated the size of the UK Creative Economy as 9.7% of Gross Value Added for the UK. This makes it a

bigger sector than Financial Services at 9.4% and a point smaller than the 10.7% of *all* manufacturing. Although reliable data is difficult to access in the Brighton Fuse report: 85.1% of the businesses surveyed in the region had fewer than ten employees, with 41.8% in the 2 – 5 range.

REACT's demographic reflects this pattern, with 80% of REACT's funded business having between 1 – 10 employers, and the average size for the first 21 companies was 3 employees.

Jon noted that REACT has been dealing with a substantial sample of a substantial sector. He argues that the constitution of the Hubs' work, where very small amounts of company investment (up to 10k) plus research inputs already determine the kinds of companies who will be attracted to the Hubs' propositions – enterprises at the start of their journeys where a £10k boost can make the difference between a dream and a reality, and enterprises with particular kinds of social capital embedded with them, mostly HE educated frequently with Masters level qualifications often with a creative research agenda underpinning their innovation aspirations.

Looked at systematically, Jon noted that this massive messy dynamic sector is the 'hatchery', the promiscuous breeding ground for successful future creative ecologies. Ideas led startups with the need for small scale creative R&D to make prototypes and have their ideas supported or challenged by academic research inputs. In short the new young entrepreneurial talents who will go on to build the future success of the creative economy. He pointed out that since the creative application of digital communications technologies is transforming every sector of the economy and much of our social and cultural lives these 'hatcheries' have the potential to shape our futures.

Jon suggested that the demand for digitally skilled creative work is unlikely to abate in the near future; indeed it can be argued that it is a key feature of future economic and social success. It is also about connection:

'The capacity to connect may be inborn and part of that mystery that we call genius. But to a large extent to connect and thus raise the yield of existing knowledge, whether for an individual, for a team or

for an entire organization, is learnable.' Peter Drucker, *Post Capitalist Society* (1993)

Creative R&D tends, Jon argued, to be talent – rather than IP-driven. This means its creativity and invention may well be in repurposing existing IP and platforms rather then creating new IP, as such. Conventional technology investment and growth patterns have been predicated on the invention of protectable IP, not just smart ideas.

Conventional creative economy businesses in, for instance, music, media, or fashion and entertainment have also been subject to the dynamics of the hit driven economy, where a slate of projects is maintained in the assumption that the occasional 'hit' will support projects that are less successful at the box office. This history also produces a high-risk culture where backing hunches and intuitions is a stock in trade, and a lot of projects die.

These businesses are also very dynamic, fluid and informal. They are the domain of the precarious creative class, where freelance workers might have several income streams as well as their own brand or label. Echoing Gill Wildman's intervention in the first panel, Jon points out that there are a range of small businesses rejecting the 'lifestyle business' category, that are a valuable part of the innovation ecosystem.

> 'aggregate curate collaborate' – jon dovey on the @reacthub drivers at #TheRooms
> — Stephen Hodge (@StephenHodgeX)

Faced with this field, what did REACT try to do?

REACT's method and approach has been expressly designed to support innovation in the landscape described above. One way of addressing the problem space we have outlined is to attempt to create critical mass from the chaotic energy of the creative microbusiness sector.

A key function of REACT has been to aggregate people and businesses into a network that can constitute such a critical mass. The crucial connections in this network are the relationships between the people in that community. REACT aggregates talent, curates people together so that they are supported, and gets them collaborating. So a headline measure of success for REACT has always been that as a

result of our intervention there will be a hundred academics in our partner universities and a hundred creative businesses who can connect with one another, and have ongoing productive relationships. REACT also aimed to create a neutral territory where some of the differences in dynamics, timescales and cultures might interact to produce the emergence of a new network with its own identity and potential for fruitful longevity.

To test the proposition, REACT carried out some early data visualisation of interview data with its funded projects, showing how participants connected with one another, finding new opportunities for research, business and more through that community.

Jon's argument is that communities and networks need to be supported to thrive and that curation, that helps diverse networks grow and develop in the creative sector, is a vital part of the innovation landscape. It creates new forms of impact and new kinds of output, otherwise unimagined. This requires us to support and strive to articulate the value of creative microbusinesses.

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Michael Marra's talk was called *'Design in Action's Innovation Pipeline'*.

Design in Action is the Scottish Hub. Michael said how he really enjoyed the first session with much recognition of what they've seen at Design in Action.

Michael's figures showed just how much growth across the UK – 37% from input, 63% from innovation in the years 2000 to 2009 – had no "long tail" due to a £24bn collapse in R&D. Particularly so in Scotland.

'There's an essential productvity issue.'

Is it possible the *nature* of our economy may have changed beyond current recognition? That change would mean we're not measuring it in the right way.

There's a huge growth in self employment but also a growth in under-employment. Michael said there's a 'fascination' with high-growth companies at all times that's detrimental, that focus on high-growth hasn't had any significant impact on the economy.

Michael said he worries that we're trying to correct for government investment.

"Chiasma": two sets of information coming together to create something new. That's how Design in Action describe what they do.

Learning.

For them, Intellectual Property [IP] is a barrier to, rather than a driver of, collaboration. Many businesses *don't* have IP. 'Innovation isn't IP. Innovation is mobilising them'.

The kind of Knowledge Exchange they've engendered is a kind that makes long term relationships.

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Jeremy Myerson, from RCA London, introduced himself as part of Creative Exchange (CX); dedicated to bringing together researchers, public, and cultural bodies to be part of an experimental innovation ecosystem.

CX are interested in tourism, the public services, and democratic process, as well as stimulating the micro economy. They are rooted in the idea of Digital Public Space, CX explored the many different ways public space could be digital. They used this idea to underpin how knowledge exchange could be carried out. They also wanted to develop a new PhD programme, built around collaboration.

Jeremy shared that after four years, CX have created new thinking about digital public space, new services and products for commercial, social and community value, new arts and humanities PhD models, and new forms of knowledge exchange.

He noted that at least half of their projects fall into the microbusiness category, and a further 25% as SMEs. Their PhD programme involves matching 21 students on a one-to-one partnership with creative microbusiness, acting as 'mini R&D departments' for microbusiness: partnerships tend to be small, direct, and intimate. Reflecting on Alex Fleetwood's comments in the first session about the emotional, artistic, and commercial tensions in innovation, Jeremy stated that these partnerships offer space and time to do this.

Jeremy gave three examples from CX showing the kinds of impacts it has produced.

Kinicho (Kinetic Audio) is a company that experiments with sound technologies, particularly the spatialisation of sound. They worked with a PhD student and FACT in Liverpool, to develop their products and ideas, and it was an example of an existing company with existing technology, working with CX to find a broader market for their work.

A contrasting example was Tableflip, a company who worked with a CX PhD student to produce a piece of software to create visualisations of civic concerns as they were raised on social media. Trialled in an area where participation in local democratic processes was low, Peterborough, this was an example of how a company's technological development was made possible through collaboration.

Jeremy's final example was Made with Glove, a wearable technology startup. This was a new company founded through a CX Hackathon; smart textiles use a heated glove for people with dexterity and circulation problems. CX has helped the founder put together a technical team to develop the project and the company has won a number of awards and investment, including from Innovate UK.

Jeremy concluded that microbusiness are fragile and need support to help them grow. For CX, having a PhD model where students act as R&D managers was an essential way to provide a safe space for companies to develop ideas. He suggested that it is all about a complex knowledge ecosystem, loose collaborative frameworks, and not the denigration of lifestyle businesses, but a celebration of those and how they connect to human concerns about life and living.

> PhDs can be micro R&Ds for microbusinesses in creative economy- prof Myerson @cxhub @reacthub #industrial #TheRooms
>   - Anka Djordjevic @AnkaDjordjevic

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Andy Pratt's talk focused on a "network overload" approach, '…like London' itself.

Their central question was 'How do you deal with that overload of people, things, ideas, and intermediaries?'

Andy stated there was a whole range of ideas, projects, creative vouchers, awards, researchers in residence, entrepreneurs in residence, boost projects, prototypes, apps, service designs, etc and they've documented them but he didn't want to tell us about them as '…it's not simply about outputs. They're important indicators but they're not the whole story.'

Andy said one of the lessons they've learned is 'It's not what you do, it's the way that you do it.' Creative Works London feel they've developed a good way to deal with that network overload.

The story of a micro-business and Knowledge Exhcange process isn't the myth of Willy Wonka's golden ticket but rather it's a *very long* process.

What Andy has feared, he says, is that we forget how we got to those outputs. 'It's often about a process of curating. It's both a conception of how the innovation and creativity takes place *but* also what you have to do to make it take place, to facilitate it.'

'Herding cats is easy compared to this. People have their own agendas.'

Creative Works London created many safe places for the creation of ideas. To make those happen, you first need a massive database…and good faith. This is critical in '…building the system.'

Andy said that though the facilitation of all this is hard, it *is* sustainable. 'You've got to feed this eco-system'. 'You've got to invest in the long term'.

> And as George Michael would say "you gotta have faith" again paraphrasing Prof Andy Pratt #TheRooms. Sorry. I'll stop with the 80s pop now.
> — Suzie Leighton (@suzietcce)

Questions from the room

Suzie Leighton, had two questions: What will change in your university due to participating in the hubs? Out of all the panels so far, we've only had majority-male – has that been a regular demographic in the businesses as well?

Jeremy: I think 3 of the 4 hubs are lead by women. You're right, however, what you see here is majority male but the hubs are better balanced than what you see here. To answer the 1st question: the hub has a profound effect on my university. We're now bolder in pushing back against the science model forced on us. There's been a big culture change…let's get the metrics right, we want to be measured differently.

Michael: In regard to the gender issues, I agree about today but the hubs are more representative. I'm pretty confident that it's a relatively balanced picture. We've worked across 5 sectors and there *is* a gender majority in some sectors – some more female, some more male [like the ICT sector]. The number of companies we're dealing with has enforced a great change in our university – internal, contracts, and more. We're keen to learn from another hub around PhDs – if we were designing PhDs now, they'd be significantly different.

Jon: In this conversation, we're not often reflexive *enough* about universities in the creative economy as a whole. REACT is a culture change project. IP – the companies have it, not the university. Getting people paid on time: micro-businesses rely on being paid swiftly, unlike universities. It has proved itself but then it comes down to individual people – if someone changes job [within a university], it loses a little of that culture change. Involve your legal and finance team *at the start* of your project. If they get enthused, then it can be fantastic.

Andy: I'm standing in for Morag and one of the strands we've seen highlighted is representation – it has to be continually examined. The cultural economy is supposed to be egalitarian but the gender balance can regularly slip into being too comfortable and forget about that balance. In terms of the university changes, there have been challenges – an uphill struggle. You *have* to change the institution. They've been set up for a science model but we have to find something new. We're the lab rats, in a way. It's not just universities, it's all institutions failing to look at the micro-business.

Tim Senior [Knowledge Exchange Researcher working betwen all 4 hubs]: What's become clear is the epic work we've done on the ground and the very narrow metrics used to measure that. We saw this

morning there are two systems: there are a lot of microsbusinesses out there but investment will only go to high-growth companies. These things are not separate. Can you say, explicitly, that the vast majority of creativity and innovation is happening in the micro-business sector?

Jon: Yes.

Andy: The succesful businesses can't exist by themselves.

Michael: …there are political drivers that are more important – to the masters of Biz – than the actual numbers we're talking about.

Jon: There's something else – we should be better at counting. We're getting better but…how you count is a very complex problem. We're trying to learn from fields like biology to learn how. For instance, if the number of connections somebody makes is conencted to the longevity of their businesss, we'd do better at our quantitive data.

Anonymous: Moving away from the micro-businesse issue, I'd argue innovation comes from humanities *and* STEM. Is there a risk of a humanities *vs.* STEM mindset emerging?

Andy: There's a respect deficit. Science doesn't come to the table in the same way – "There's the real stuff, then there's the fluffy creative bit." It needs to be a partnership of equals.

Jeremy: I think you've got a very good point.

– Creative Business & Research: Entrepreneurial Stories

In this session we will hear from SMEs and microbusinesses discussing the impact the hubs have had on their business and how research has contributed to the development of their businesses.

Speakers:

- Nadia-Anne Ricketts, *BeatWoven* **–** Award winning, avant-garde textiles label BeatWoven® pioneers globally in pattern exploration with its couture fabrics for the prestige interior design market. It uses its skilfully coded audio technology as an instrument to translate and reveal the geometric patterns created by the beats and sounds in music. BeatWoven is one of the businesses supported by a research collaboration with Creative Works London
- Jason Morinikeji, *Urban Farming Company* **–** The Urban Farming Co. has developed a small, integrated hydroponic growing platform, the *TableFarm*, which is able to cultivate fresh vegetables, plants and herbs inside the home. Using wi-fi, the *TableFarm* can respond to plants needs by adjusting the local environment. *TableFarm* has been developed with support from Design in Action.
- Chloe Meineck, *trove* **–** recognised as one of the Design Council's 'One to Watch' this year, Chloe is a social designer and was Designer in Residence at the Design Museum in 2013. She worked with REACT to produce *trove*, a product to enable children to attach an audio story to a precious object and then trigger the story when the object is played with. The project is a collaboration with Dr. Debbie Watson from University of Bristol, who specialises in childhood identities, working particularly with children in care and adopted children.
- Lee Omar, CEO of *Red Ninja* **–** Red Ninja are a Liverpool based design-led technology company who collaborated with Creative Exchange to develop an Open Planning app.

> Responding to the challenge of transparency and public engagement in planning processes, Red Ninja worked with PhD students and researchers from Liverpool University to develop tools that use narrative and visualisation to involve the public in planning processes.

- Mark Leaver, business development adviser, chaired the session

Mark described his role as a 'commercial conscience'. The last session was about unversity measuring impact, this session asks the businesses themselves.

Nadia spoke first. She was a part of the Creative Works London hub and received two vouchers to aid *BeatWoven. BeatWoven* takes digital music files and translates their geometric visualisation into beautiful textiles.

Nadia first came up with the idea in 2009 and collaborated with a coder from her university. They used [James Bridle's term to describe a particular computer-vision oriented perspective] The New Aesthetic to create the look and feel of their work.

Along *BeatWoven*'s journey, Nadia became concerned with the legality of translating other people's musical work. Creative Works London – through their voucher system – helped Nadia talk to professors in both law *and* computing. This helped her in many ways: the relationships she built with the researchers and the extended Creative Works London network were just as important as understanding the legality and the technical side of her business.

Nadia said her business now feels completely assured about going into the market and she feels fully equipped

Questions from the floor

John [Creative England]: What's the piece of music on the chair?

Nadia: Lucy in the Sky with Diamonds.

Mark: How bespoke is it? Can I have two songs?

Nadia: Yep.

Mark: That's Christmas sorted then –

Nadia: And a birthday.

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Chloe Meinheck, a social designer, moved to Bristol to be a part of the Pervasive Media Studio to develop her *Music Memory Box* – a work designed to support people with dementia.

Chloe describes her work as always working *with* people to find a design solution. She applied for REACT's Play Sandbox and met Dr. Debbie Watson whom she now regularly collaborates with. *trove* came through the Play Sandbox – its success led to Chloe being invited to Japan to test it and it transcended national boundaries.

The next step for *trove* is using it with a local authority to aid in the development of adopted children. They're making 10 for a local authority now. REACT helped Chloe to understand her practice – '…as a designer, I need to pair up with academics that want to make something and also probably a charity that can give us access to vulnerable groups that we can work with to find solutions.'

Questions from the floor

Mark: What was in place for adopted children before *trove*?

Chloe: Legally there should be a "life story book"…but often the quality is different depending on the people [social workers] and the child doesn't get to input. …*trove* let's the child input, *trove* is more child focused.

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Jason wanted to talk about a journey.

At age 10, he wanted to be a designer and innovator. He went away and did that but found most of his work ended up in landfill!

He then went away and did an MSc in Sustainability which led him to Mozambique. Then he came back to the UK and Scotland. There he set up the *Urban Farming Company* to encourage food autonomy. Jason passionately believes in helping people to grow their own food.

In the current state of things, there's a whole series of steps that separate the consumer from their food and add unnecesssary, costly, environmentally unfriendly parts. In the future, Jason wants to give people an advanced greenhouse to help people grow their own food at home.

For Jason, Design in Action was a revelation.

Through the disruption of the group telling him they didn't like his idea, it gave him the encouragment to do it even more – he switched from a greenhouse to a very small greenhouse that you can keep on your table: a smart, plant growing device controlled by laptop or smartphone.

Jason did a focus group that made him realise he had to focus the product on teaching children about food. 'How can you gamify the process of growing food for children?' From this, he began to examine the behaviours that encourage children to compete thus grow the bigger or healthier food stock.

From there, the research into how to get funding begins.

> Great talk by Urban Farming Company on a hydroponic system to engage children with home #food growing at #TheRooms
> — Arran Frood (@arranfrood)

Questions from the floor

Mark: What are the routes to market?

Jason: The customer is the parent who's worried about the child not knowing about food so the route to market is educational as well as playful. First retail, then educational. Hopefully by the time they're older, they have a better appreciation of where food comes from. I know that, with a project like this, you need investment and an interesting background – I see this [project] as something that needs investment and that can grow.

<p style="text-align:center">***</p>

Lee Omar of Red Ninja, an SME based in Liverpool, talked about his work with CX in Lancaster. They are a 15 strong design-led interdisciplinary company of designers, technologists, product designers, and data scientists.

Red Ninja got involved in CX because they wanted to invest in their own R&D and generate their own IP. They had never collaborated with academia. They created the Open Planning app, which was to encourage people to become involved in city planning processes. This has traditionally been hard to do. Working with academics honed their ideas about how to build a business and an

idea, which was all down to the idea of co-creation, something new to Lee. Lee worked with Rachel Copper and Richard Koeck. The experience was one of sharing and ideas development. They didn't enter the conversation with a presumption about what they'd like to do.

'Business advice and business support can be ten a penny, and 90% is crap' says Lee, but found CX had the right expertise.

It was a small investment from CX but they got important government data about civic participation and the real commercial proposition is in how you can access this data. Utility Master Plan [ump] was created off the back of the original app. This has enabled energy companies to predict where new energy demands on the grid were coming online in new builds. This made significantly more money than the initial investment. **Since the CX involvement, Red Ninja have created 13 graduate jobs and seen their turnover increase 1000%.** They have also worked with Google and other companies, and are now co-sponsoring 3 PhDs.

> "Academia is an extension of our laboratory" @leeomar #TheRooms
> — Suzie Leighton (@suzietcce)

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Questions from the floor

Mark Leaver: I'm struck that a lot of the value in this relationship wasn't money.

Lee: The money wasn't irrelevant.

Jason: When you're offered some money, it's an interesting space because it allows you to relax and enjoy process. A really nice space for me that allowed me to breathe.

Mark: You touch on this a little bit. The idea of space.

Nadia: For me the money paid for my product to go to market. It was the outcome of the research I spent six months doing. If it wasn't for the money I couldn't go out and test the research I had done, to test the market.

Jason: I would add that the money isn't just given to you, it's a

transaction. They've invested in me, so I'm going to make sure I do this right.

Mark: Can we explore this with regard to IP?

Chloe: So I have the IP of my project, *trove*, but it's more of a collaboration. Half *trove* is the academic, half me. For us it worked well.

Mark: And that's something you negotiatied yourself?

Chloe: Yes.

Mark: Some of the academic/business relationships worked really well and others, not so much.

Nadia: In terms of exploring the copyright issue, I didn't know. It became a relationship of a teacher/student, then swapped over. We've kind of ended up being friends. And we're going to be moving forward into other projects. It doesn't just stop here.

Mark: And Lee, you've replicated the model in Red Ninja.

Lee: Yes, because not everyone has the access to the resources they need.

Andrew Wray: You're coming to the end of public funding. What would you say to the government in terms of how to fund the sector?

Chloe: To carry on. It makes so much sense for creatives to work with academics. For the creative person it extends the possibilities.

Jason: People understand the benefits of an innovation system. But you can only get that by supporting the chaos of the process. Some investors won't, so it's important.

Lee: Get academia to work with very early stage companies, high risk. Probably most will fold, but take that risk.

Nadia: I would agree, carry on. Once you come out of being a startup, how do you grow? Now I feel I really need a great mentor.

Jason: It sounds like a linear process from up here [on the stage] and at the end you just get rich, but I think it's that willingness to fail and develop a new language to understand [iterative processes].

Mark Leaver: This reflects the questions raised in the last session: how do you translate what's happening here into a much more instrumentalist approach?

Jon Dovey: I'd be interested to hear you explore and contrast your different attitudes to growing and scaling.

Nadia: For me, I'd need more money to reinvest and grow in equipment, to pay someone to be my assistant.

Mark: Do you feel you are investment ready?

Nadia: No, because what investors want to see is a list of customers, but that is a long and expensive process. The way I am doing that is getting out there and doing exhibitions and trade shows.

Jason: For me the key for scaling is finance. In four or five years would I be the best person to scale a business? One of the challenges for me in the future is to make sure I am building a business that's ready to step into a global field.

Lee: I've often been a little wary of investment because once you've done a deal with the devil, that's it.

Chloe: I had a couple of dodgy offers that don't fit the business. I'm looking for social investment. To scale I need to do pilots.

In 140 characters, where will your business be in 5 years time?

Lee: Silicon Valley.

Nadia: Somerset House with my own mill.

Jason: I'm ready for the next round of investment but would like to be a high-growth business and at 5million.

Chloe: Having *trove* and *Music Memory Box* running regularly and developing new products.

– Micro Mesh & round–up

An interactive session in which we drew together key learning to build more productive relationships between university research and the creative economy.

Gill Wildman discussed the common themes throughout all of today's workshops: surviving and scaling. When asked to expand that, Jo Lansdowne told us about a participant in the workshops who described the need for understanding what it is about your business that you love – if it's a small thing, don't scale.

Jo reinforced this with her own experience wherein people don't always know which part of their job they truly love. Her job as a producer is to notice that. Gill then discussed how microbusinesses might need to reshape what their offer is in order to weather the seasons of the market – these are deeper issues about scaling up.

Dr. Simon Moreton, Knowledge Research Fellow at REACT, has some questions for the audience.

'Two big questions: what's new that you've learned today? What's missing, what haven't we talked about?'

Simon asked Jon to start us off. Jon referenced Lee Omar's point about meeting academics and feeling like you didn't want to say much in case you make a fool of yourself – Jon had never heard that before.

Gill: I've learned just how valuable a blended knowledge portfolio is to creatives *and* academics.

Jon: How would you move that conversation into the next 5 years?

Gill: All hubs have been researching in real-time. All universities need to embrace that. If you like, we [unviersities] could be the research arm of the small business community – an expansion model we haven't tapped into yet.

'One of the things that today has reinforced for me is data and metrics. How the essence of the output is distilled. Universities have got a particular role in distilling what's more generalised good practice. There's still a long way to go. Pinning them down is something which still needs work.'

Jon Dovey: Is that a feeling others have picked up on? Did you feel you were hearing anecdotal, vague evidence?

Jo Lansdowne: I really like anecdotes. I think there's something really powerful about coming together and hearing the stories.

Simon: The cultures that need to come together are research and metrics – it has to be a blend of metrics *and* story.

The conversation between STEM and humanities – changing the conversation is the beginning of changing the metrics.

Michael: I think those metrics exist, they're just not always presented. We've got *a lot* of hard numbers around our work in Scotland.

Andy Pratt: One of the issues is we want *blended* metrics – meaningful quantitative, yes, but qualitative as well. We need to look more closely at these. The starting point is systematic research – a story is easy to dismiss if it's just one. Any good policy would want to work on a *process* not an output. We have to be careful and use those blended metrics.

Jon: We're very close to being robust. I think you'll find there's a good mix of robust *and* systematic work. Tim Senior's work is showing this. The AHRC chose 4 very different hubs but I think you'll see the work role out [in time].

Simon: The field we're in is labour–intensive. The non–linearity of the work means you have to be responsive and present: conversations you have by the coffee machine are often incredibly rich. This knowledge of data collection means you have to ask, how do you invest in that research?

Professor Janet Jones, South Bank University: I was encouraged to hear of equal relationships between academics and creatives. A document is being launched to the government on November 23rd [2015] and it says much of what we've been saying today.

Jo Lansdowne: In response to Simon's questions, I wondered if Robin might say something. Robin is a part of the build crew working on The Rooms.

Robin: It's been really interesting to hear academics discussing the

creative industries – something I've never heard before – and especially interesting to talk about scaling which I'm doing now. The whole day has been super useful.

Simon: What about anything missing or omitted?

Gill Wildman: There's some interesting resarch done by the RSA on microbusinesses if you want to follow today up. They've been able to find a very rich way of portraying the value of microbusinesses – worth it for the finer grain detail.

Anonymous: What's the future for these kinds of working models?

Jon: Although we're in for a rough ride, I can't see how these models will stop. The logic of productivity is *in* the spaces we've designed. Although we currently have a minister who doesn't believe in industrial policy, inevitably we will find ways of regrouping. My own version of the future is 'What's a knowledge commons for the university?' It's a serious idea that we need to consider thoroughly with lawyers and finance departments too. I think the commons is an interesting way to manage networks too. Anybody else want to offer a future?

Suzie Leighton: I can't say what will happen with Creative Works London but we had an existing network, a separate business that will hopefully continue. At least in terms of the network, that will continue – hopefully, whatever happens, that will continue through the Cultural Capitol Exchange Networks. If you drop it, it's very difficult to get it back up again so we're all thinking about not letting it fall away.

Naomi Jacobs: One important thing is this new attitude to innovative PhDs – we'll definitely be using it.

Jon: To follow that up, we'll be creating *a new kind of academic.* One that works with creative businesses. One who doesn't spend their time writing for peer reviews but one who does knowledge *through* collaboration.

Naomi: Maybe those academics will realise that they don't want to be academics in the traditional sense.

Your notes