

impact



USW news in brief



Aircraft Maintenance Engineering graduate Natalie Simpson received a first class honours degree and has been named British Airways AME student of the year.



Professor of Learning Disability Nursing, Ruth Northway, has been named on the Nursing Times list of the UK's most inspirational nursing leaders.



The University has announced a partnership with UNICAF to allow Sub-Saharan African students to complete their degree with USW.



Law graduate and criminal law solicitor Sophie Toms became Wales's youngest Deputy District Judge at the age of 39.



USW alumnus Asif Kapadia (see p.8-9) has won a Grammy, BAFTA and an Oscar for his work as director of acclaimed documentary *Amy*.



The University and the Welsh Government have launched the National Cyber Security Academy – the first of its kind in Wales – at USW's Newport City Campus.

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The University has been ranked 8th in the WhatUni list of top universities across the UK, voted for entirely by current students.



Documentary Photography lecturer Lisa Barnard has been awarded a \$15,000 Getty Images Prestige Grant to complete a specialist project.



Entrepreneur, racing driver and former science minister Lord Drayson has unveiled the Power Systems Laboratory at USW.

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Sir Matthew Bourne

A creative future

Vice-Chancellor **Julie Lydon** reflects on the creative edition of *Impact*

It's my pleasure to welcome you to the latest edition of *Impact*. We've drawn from the wide range of the diverse USW community to bring you perspectives on creativity, from artistic leaders like Matthew Bourne to those who play key roles behind the scenes.

Whether our graduates are winning Oscars for their documentaries, publishing books, recording albums – and we're proud that they do all of those things – they are adding both to our economy and to the society around us.

However, it's not just in the creative industries themselves that creative graduates thrive, often in small start-up enterprises. There are major consultancies, great businesses, all with creative graduates in their most senior positions. And when I talk to the chief executives of major organisations, from BA to the BBC, they all say the same thing:

Creativity matters.

I often say to our students that a degree is more than just a training for a career. It unlocks potential, it hones the flexibility of thought that we need to succeed, it equips us with new ways of looking at the world around us. And you can say exactly the same thing about the arts and creative industries. Just as universities aren't solely a link in the economic chain or a cog in a governmental growth machine, neither are the arts. And, just like education, creativity is not simply an economic sector.

When we hosted Tony Hall, the Director General of the BBC, at an event last year we discussed how important it is to make excellence in the arts and the creative

industries available to talented performers of every background. These are difficult times. But when things are hard and budgets are squeezed, culture and the creative industries shouldn't be pushed aside as less important. Tony makes the case for the BBC on pages 10-11.

We need to see the current economic crisis as an opportunity.

It isn't only in times of plenty that great strides are made in the cultural life of a community. The Great Depression gave us the Blues as a mass art form and it inspired some of the great writers of all time, as well as developing the radio play and bringing in, for the first time, significant and sustained public funding of the arts, from painting to music to theatre to architecture. USW alumnus Jonathan Poyner makes the case for the national arts institutions on pages 16-17.

As you'll see in this edition of *Impact*, we're doing our bit as a University.

Our expanding creative industries campus will open for business in September. It builds on what we're already doing with Wales's growing presence in the creative industries and bringing together all of our creative industries provision in one great powerhouse at the heart of the media revolution, as Ben Calvert writes on pages 18-19. As the parent of the National Conservatoire, we're delighted at how well the Royal Welsh College of Music and Drama is doing, as we soon celebrate a decade of the College being a member of the University of South Wales group.

Our aim as a vocationally-focused university is to equip talented students for a career in their chosen part of the creative industries. Key elements of this education are interaction with industry, and simulation of the professional environment, developing of an individual's personal network and profile through a close link with the creative industries, whether this is through one-on-one teaching by professional performers or work placements, guest lectures and industry collaboration.

A significant proportion of these graduates go on to perform at the top level in their field, including film-makers such as Oscar-winner Asif Kapadia, interviewed on pages 8-9.

Reflecting the diversity of the creative industries sector in the portfolio career which is its hallmark, graduates with USW degrees also build careers as arts administrators, event managers, therapists, peripatetic music teachers, classroom teachers and in non-performance roles. Our alumni on pages 24-25 show this variety in action.

The common thread running through all of this is the creative talent pipeline for Wales, and for the wider creative community. It's a part we play with pride.



Professor Julie Lydon OBE is Vice-Chancellor and Chief Executive of the University of South Wales



Freedom, Passion and Innovation

Inspiring a new generation of dancers comes down to opportunities,

Matthew Bourne tells *Impact*

IMPACT: What first inspired you to become involved with dance?

MATTHEW: I was lucky to be born to parents who were fans of theatre and film. I was brought up in London and they used to take us to see shows all the time. But there was no classical music in the house; no dance specifically – it was more musical theatre, plays and movies. It gave me a love of those things from a very early age and I was always putting on a show.

From the age of four or five, I would get together a group of young people in my area and we used to put on little shows in our local church hall. I didn't enjoy school very much so all of my interests were outside of school. I didn't really know where my future would lie; I just knew this was something that I loved.

IMPACT: Was dance and movement something that came naturally to you?

MATTHEW: I didn't start any formal dance training until I was 22, when I went for my audition at the Laban Dance Centre in London. I had enjoyed dancing since I was a young boy, and used to copy Gene Kelly and Fred Astaire from their movies, but I wasn't very good at it to begin with! I think the teachers were more impressed by my passion for dance, and luckily I hadn't left it too late to start learning.

IMPACT: How did you make your own way in this tough industry?

MATTHEW: I always wanted to have my own dance company, so at the end of my four years of training, it seemed natural to me to form a company, which I did with a group of fellow graduates. I knew I wanted to choreograph and creating my own career path felt like the best way to go. We began to get some touring dates, and it grew and grew from there.

IMPACT: Your production of *Swan Lake* has become the world's longest-running ballet. Was that the breakthrough moment for your career?

MATTHEW: *Swan Lake* definitely changed my life and those of the people involved in it. It came as an opportunity for me at a time when I really didn't expect it. I had been commissioned to do a version of *The Nutcracker* for Opera North, which was incredible as I had the chance to create a full-length ballet with a large cast and full orchestra – something that I could never have dreamed of.

I loved working with a Tchaikovsky score, so when Arts Council England gave us the opportunity to follow it up with my own company and do another Tchaikovsky ballet, I chose *Swan Lake*. Initially we planned to do a two-week run in Sadler's Wells Theatre and then tour the UK as an experiment, but of course it took off in a way that was unbelievable to us, and I've never looked back from that moment.

IMPACT: How important is it that young people have access to dance training?

MATTHEW: If you have opportunities on your doorstep it can make all the difference in terms of shaping your future in the arts. When I was growing up there was a lovely lady who ran a dance company at the local church hall, whose sister played the piano, and I owe an awful lot to her. She encouraged me to put on shows, and to have those sorts of inspirational people in local communities is so important.

I was one of the last students at my college to be funded through a grant from the local authority, so that early investment in my career has since paid off.

IMPACT: You are known for bringing the unusual to the stage for your audiences. How do you ensure that your audiences are surprised?

MATTHEW: Audiences are very important to me, and it's interesting to see how different they can be as we travel around the country. I've always wanted to make my work accessible to everyone, to show young people that dance and performance is something they can get involved with. It's important that people are inspired by my productions and can identify with the characters. We need to keep harnessing that inspiration and encourage it.

In the early days of the company, people were coming to see our shows with different expectations – it wasn't the ballet they knew, so they were surprised by our take on it. With the productions I do, the audience are taken on a journey. They do not need prior knowledge of the show; they just watch and the story is told. That's why we are able to take our work around the world.



Sir Matthew Bourne OBE is the creator of the world's longest running ballet production, *Swan Lake*, and a five-time Olivier Award winner

Sir Matthew Bourne was speaking at an event to mark 40 years of Rubicon Dance, hosted by USW.

Telling the story

Grammy, BAFTA and Oscar-winning film director **Asif Kapadia** reflects on successful film making



I think films should be exciting and dramatic. Some people say they would never go and see a documentary at the cinema. I treat them like dramas. I think that's the main thing; make it feel like you're watching a drama, but it's real.

I didn't train specifically as a documentary film maker. In fact, my first feature film, *The Warrior*, was anything but, telling the tale of a man who renounces his role as an enforcer to a local lord but then becomes the prey in a murderous hunt through the Himalayas. It won two BAFTA awards in 2001.

But telling stories through images, rather than talking heads, is something I believe makes documentaries like *Amy* more appealing to people. The aim is always to get people who don't watch documentaries to go and see it because they want to see a good film and they want to be entertained. Maybe they don't like Amy Winehouse but the intention is to get them there for the movie experience.

The beginning is all about the character. It's about understanding the character and their journey and having lots of layers. In the same way as if you're writing a script you want it to have as many layers as possible. There are lots of questions that you have to answer. That's what a good script should do, what a good movie should do and what a good documentary should do. It should be about 20 different things and not just one. *Amy* contains sensitive subjects, with debate and accusations about the singer's life continuing long after her death. I admit that at the start I didn't know Amy's story that well.

I knew her music, I knew she was a singer and I had her CDs, but I'd never met her or saw her perform live. I just felt there were lots of questions that perhaps, to me, remained

unanswered. Why did her life turn out the way it did? Why is it possible that someone can die in this day and age in front of our eyes and it didn't feel like a big shock to anyone? Why was she on stage when she didn't look well? I didn't really understand. I'm interested in making films where I learn along the way, like the audience. That's how I feel; I'm the audience.

In making the film I spoke to many of Amy Winehouse's friends and family. With the media furore surrounding her and the accusations that had been made in public, I had to build trust and understanding before people agreed to talk to me.

You've got to spend time getting to know people and spending time looking at them and listening to them, and for me, with *Amy*, a big part of it was just gaining people's trust. It was all about trust; it was all about people who thought something awful had happened and it was like no one had cared in the world. Nobody seemed to have an interest in what was really going on. And then I came along and they didn't have any trust for anyone. So I had to somehow speak to them and listen to them in a way that no one had done before. That was my job. What was interesting with *Amy* particularly, which I had never done in a film, and in a way wasn't very difficult, but as a piece of film making it was a departure and a bit of a dream because there was no screenplay. There was no document at all. There was never a structure; nothing on paper. It literally all came out of conversations and I just started making the film.

My career began at the former Newport film school, which is now part of the University of South Wales. I studied a two-year HND film course from 1990-92 and everything I shot was on film – you had to load the camera

yourself, you had to shoot the camera and you had to cut the film. For me it was kind of the end of an era of making film and learning how precious your material is and really having to think before you shoot, which is the opposite of what you would do now, when you shoot and then you think.

I basically spent two years just making movies. I worked for people in every different capacity. I was a camera assistant, a focus puller, laying tracking, being first assistant director, being in the art department – doing whatever it took to learn to write and direct my own stuff.

At that time it was exactly what I needed. There were other courses that were theoretical but my love and passion for film making came from being on set, and my course was literally two years of being on set. A really important part of my journey was the first film that I made at university called *Pizza Man*. My tutor was very supportive of it and I still love the film. It was a documentary about an Italian pizzeria owner in Newport. That was my first documentary.

In the end people loved that film and it could have been on TV but it was never good enough quality-wise, so it never got shown anywhere. But it was really the start of my interest in documentary film and working with people to tell a story from a character's point of view.

Asif Kapadia (HND Film, 1992) won a Grammy, BAFTA and Oscar for his work as Director of the acclaimed documentary film *Amy*



makers of *The Bastard Executioner*; and Pinewood, whose new studios mean more investment and jobs, and more sustained economic activity for Wales.

Meanwhile, we have been working on ambitious plans to build a new headquarters in the centre of Cardiff. Outdated technology and high running costs have made it necessary to leave our home of 48 years in Llandaff. The new building will contribute to the redevelopment of the area around Cardiff Central railway station and will house over 1,000 staff. The latest impact study estimates that our decision to relocate will unlock more than a £1bn of economic value over the next 10 years.

Just as importantly, we estimate there will be over 50,000 public visits to the building each year and it will be a clear and visible sign of an open BBC engaging in the heart of the Welsh capital.

This idea of an open BBC is one that I want to make central to our plans for the next Charter period.

In September 2015, I set out plans for creating an 'Open BBC' for the internet age. Open in a way that will allow our audiences to shape our services.

I believe that the single most important question we need to ask in the debate about the BBC's future is not about our relationship with government or politicians, but with our audience. Our overwhelming responsibility is to ensure that the BBC of the future will serve their best needs and interests.

Our relationship with the audience has never been closer but new technology will make it even easier to respond to their needs.

We are already working on plans to consult audiences about our services and programmes.

Meanwhile, we want to use technology to develop new services that are genuinely collaborative. We have proposed a new Ideas Service that will become the new home of knowledge for our most passionate audiences – ranging across arts, science and culture. An open platform, drawing on content and knowledge from across the whole of the BBC, together with the expertise of Britain's best cultural and scientific institutions and the active participation of our audiences.

We want audiences to not only consume, but also contribute, share and celebrate ideas and content on the new service. Like *Stargazing Live*, we want it to benefit from having thousands, maybe even millions, of people involved.

Opening up the BBC to its audiences is the best way of guaranteeing the independence and accountability they need, as well as ensuring the quality and creativity they trust and rely on.

I don't doubt that the next Charter period will see as much change and progress as we've seen since the current Charter came into effect in 2007. However, I believe the BBC will be best placed to respond to these changes if we remain committed to serving all audiences throughout the UK; reflecting and reporting on their lives in an open and confident manner. Alongside this, if we can harness the power of technology, we can give back even more to the country with our vision of an open BBC for the internet age.

Lord Tony Hall is Director General of the BBC, a Life Peer in the House of Lords, and an Honorary Doctor-Designate of the University of South Wales

Creating the BBC's future

Tony Hall argues that an open BBC is central to a new generation of broadcasting

2016 is a vitally important year for the BBC in Wales and beyond. Our current Royal Charter expires at the end of the year, and we are well advanced in the process of working with the Department for Culture, Media and Sport, and others, on what a new Charter might look like. The final decision will be one for Parliament, but there are a number of elements that we feel are very important. I would like to touch on just two here.

Firstly, all parties agree that the BBC has an important role in representing all parts of the UK.

For the first time this year the devolved administrations in Wales, Scotland and Northern Ireland will have a formal role in the Charter process.

The BBC's role in the nations is twofold. Firstly to represent that nation through its programming, by informing people about what is going on around them, to educate people about their local community and the institutions taking decisions that affect them, and to entertain people through the telling of stories that represent their life.

Secondly, the BBC can act as a catalyst for investment in the creative community. Not only by helping to sustain a vibrant local contingent of producers, directors, technicians, editors, journalists and digital experts, but by entering into partnerships with local institutions, public bodies and the independent production sector.

There is no better example of this than the work we have been doing in Wales in recent years. Our specialist drama studios opened at Roath Lock in Cardiff in 2011. Since then the studios have gone from strength to strength and are now the permanent home of flagship dramas *Doctor Who*, *Casualty* and *Pobol y Cwm*.

And this success has been a catalyst for the remarkable transformation of the creative industries in Wales – a sector capable of attracting Hartswood, the makers of *Sherlock*; Fiction Factory, makers of *Hinterland*; Fox,

Creative Industries: Wales's international opportunity

Wales must look to the wider world for a creative living, says **Dai Davies**

It's common practice when writing about the creative industries to gain the reader's attention with statistical evidence of the UK's success in growing the sector at an astonishing rate. So here goes...

Figures released by the UK Government in January 2016 show Gross Value Added (GVA) for the creative sector at £84bn and for the creative economy as a whole at £133bn. It accounts for over 5% of the UK economy and employs 2.8m people. The sector's growth continues to be substantially higher than overall economic growth, generally managing to exceed 5% a year.

Growth over the last two decades shows an increase from £32bn in 1997, £57bn in 2006 to £84bn in 2015.

The real life benefit for Wales is that our creative economy workforce here has grown to 75,000* and the opportunities that the UK as a whole enjoy are there for Wales to share.

The Welsh Government took the decision to treat this as a priority sector by developing its own industry expertise and by creating specialist funds. These include £30m for TV and film and £3m for digital start-ups.

The film and TV sector's progress has been widely noted in the media. Three studios plus the BBC's facility at Porth Teigr are operational where none were before; Pinewood, Dragon and Swansea's Bay Studios.

Progress has come through this proactive Welsh Government strategy, delivered by a small specialist team supported by advisors recruited from industry. 'Soft' loans are employed as an incentive, but are not enough on their own. Wales has managed to present itself as a strong choice through good work on location support, good access to skilled technicians and creatives and – it has to be said – proximity to London and Heathrow.

Former Minister for Economy, Edwina Hart AM, deserves praise for encouraging a culture of decisiveness and a 'can-do' attitude in the sector support team. Other regions and countries have soft loan facilities and tax breaks too, so getting this work into Wales is a tough and competitive business.

It's also worth mentioning how Wales's subsidised broadcast sector has contributed to developing talent. For a small channel, S4C has given many directors the opportunity to hone their skills and each of those will have a team of freelance technicians, creators and actors supporting them.

In another area of Welsh language artistry, 2015 was the year that saw the first release of an album sung in Welsh on a major label, Universal. This is a landmark for Welsh music, and a great achievement for Gwenno Saunders. Along with artists like Colorama and Cate LeBon, her work originated through the Welsh language, is now crossing over to a potential world audience. I feel these artists can trace a musical lineage back to pioneers like the Furries and the Gorkies, which is perhaps some indication of how long it takes for a distinctive music scene to evolve.

In general though, despite these successes for Wales, we do not live in a world where recognition within a small country is sufficient to maintain a viable career in the creative sector. I would discourage anyone from thinking in terms of a Welsh music industry or Welsh film industry. Even thinking in terms of a UK industry is at best limiting and at worst financially unviable. These are worldwide markets with content diffused everywhere, often in an instant.

With the exception of subsidised arts and broadcasting, Welsh based and trained creatives have to look to this wider world for their living.



Taking the music industry as an example, artists who might, through regular appearances in the UK Top 20, appear to be successful are unlikely to be breaking even financially from record sales. Even the wider UK market does not generally provide enough sales income to bring about viability. Those artists who survive into the long term usually do so by selling well internationally and successfully exploiting each aspect of their career. It's a similar story in film.

The Welsh Government has the laudable ambition for Wales to be a major player in the creative sector, both the commercial part of it and in the Arts. To do that we all have to envisage Wales of the future sitting in the midst of a worldwide market for its creative goods and services, and a worldwide audience for its artists. We have to work towards that vision.

In the final analysis, creative economies work because of talent. Some people are born with exceptional gifts; the rest of us have to just work hard. Talent needs to be nurtured and, for universities like USW who specialise in this sector, the nurturing includes an understanding of how the disciplines of art, technology and business come together to sustain an industry.

Although talent is the essential component it doesn't translate into success without being part of a collaborative process; sometimes a very complex one. This collaboration should be at the heart of the university experience for those who wish to make a living in our industry. USW has all the resources and skills to replicate the complexities of the commercial creative world outside within its own organisation.

To quote a Welsh Government document: 'Good ideas can be overtaken by better ones. Markets quickly won can be lost just as quickly. New skills are needed all the time and sometimes more quickly than our education system and training provision can match.'

It was always true that new media technology developments created opportunities for both business and the arts, but never more true than today. Just as film in the 1920s was seen by artists as a way of expressing themselves and business as a way of making a buck, digital now gives USW students the same opportunity and choice.

Anyone in doubt about the role of technology and business in the creative world need only go back to those stats quoted at the beginning of this piece. Looking at a more detailed breakdown shows that the single biggest creative sub-sector is software and second is marketing. Between them, these two sectors make up over half the creative industry economy at £50bn.

So the future economy of this small country of ours will need creative techies and techy creatives, entrepreneurial creatives and creative entrepreneurs, entrepreneurial techies and techy entrepreneurs. That's what USW can do for Wales.



Dai Davies is a world-renowned music producer and a member of USW's Creative Industries Advisory Panel

An enabling restriction

Ruth McElroy examines the role of creative industries in a small nation

When the Centre for Media and Culture was established at the University a decade ago, there was a clear sense that Wales was not unique in facing particular challenges and opportunities due to its status as a small nation. Rather than turn inwards, an open exchange with other small nations, many with their own minority languages and distinct culture, seemed like a better approach. But what counts as a small nation?

Well, common measures used include geography or population size; Bray and Packer, for example, note that over half the world's "sovereign states have populations below five million, and 54 have populations below 1.5 million," hence, they argue, "the world is a world of small states" (Bray and Packer, cited in Hjort and Petrie 2007:4). But small is also a measure of relative power, often in relation to the power of much larger

neighbouring nations. So Canada may be one of the world's largest states measured by geography, but its relation of power with its powerful neighbour, the USA, means that some Canadians argue their culture and media industry share characteristics with other small nations.

This was brought home to me in an essay by a Canadian scholar, Zoe Druick, whose research on the television industry in Toronto demonstrated that indigenous television programme making was becoming increasingly geared towards selling to the US television market, hence lots of formatted property shows that made Toronto look like any American city. Very little output seemed to be representing Canada to Canadians, which isn't a problem if you think that the creative industries should be driven by economic considerations alone.

In many parts of the post-industrial world, the increased prominence of creative industries policies has meant that an economic agenda has loomed large in governments' evaluations of how mediated art forms such as cinema, games or television can provide jobs, support economic growth

and lever both national and international private finance. However, small nations' creative industries should never be reduced solely to the financial benefits they bring. A nation's media and art forms contribute to a people's imagination, their intellectual horizons, and a sense of themselves.

In places as diverse as Canada, Catalonia, New Zealand, and Wales, there is an important cultural debate ongoing about the public and civic value of the media in representing a nation to itself. The BBC's own Charter, currently under review, commits it to "representing the UK, its nations, regions, and communities." Yet, as research undertaken by the Institute for Welsh Affairs' Media Policy Group makes clear (and to which our Centre contributed), there have been enormous cuts to television programming for Wales across BBC and ITV which are greater than the corresponding reductions in any other part of the UK.

Investment in the BBC's flagship drama studios in Roath Lock demonstrates how the major player in Wales's creative industries can invest in change when it perceives a strategic imperative to do so.

But no matter how impressive and game-changing those facilities may be for making TV dramas like *Doctor Who* for network, they do little to improve the visibility of Wales on our television screens. In a similar way, there are economic benefits to be gained from Cardiff and Wales's increasingly international reputation as an excellent, skilled place in which to shoot Hollywood cinema and television, from *Harry Potter and the Deathly Hallows* (dir. David Yates, 2010) to *Da Vinci's Demons* (BBC Worldwide Productions, 2013-

15), but without a sustainable and diverse indigenous film industry the Welsh creative industries would be so much poorer.

There are ways to achieve both goals. A good example here is the national and international success of Fiction Factory's *Y Gwyll/Hinterland*, transmitted on S4C in Welsh, and in both bilingual and English version on BBC Wales and BBC Four respectively, and exported to numerous countries including Denmark, Germany and the USA.

One of the biggest challenges facing small nations is their invisibility.

That's one reason why the Centre hosts events that critically assess the contributions of major cultural institutions such as National Theatre Wales. The creative industries are uniquely capable of making small nations visible to the rest of the world. Becoming ambassadors not just for excellent production values and compelling aesthetics, but also for giving a window onto a world that is different from the dominant nations' mainstream.

The creative industries in small nations can enrich us all when they provide us with that originality of vision that comes from a strong sense of place and an openness to sharing this with the rest of the world. The way to achieve this, it would seem, is not to aspire to greater homogeneity of output, but, as the Danes have done so effectively in their export of Nordic Noir, to retain a sense of difference.



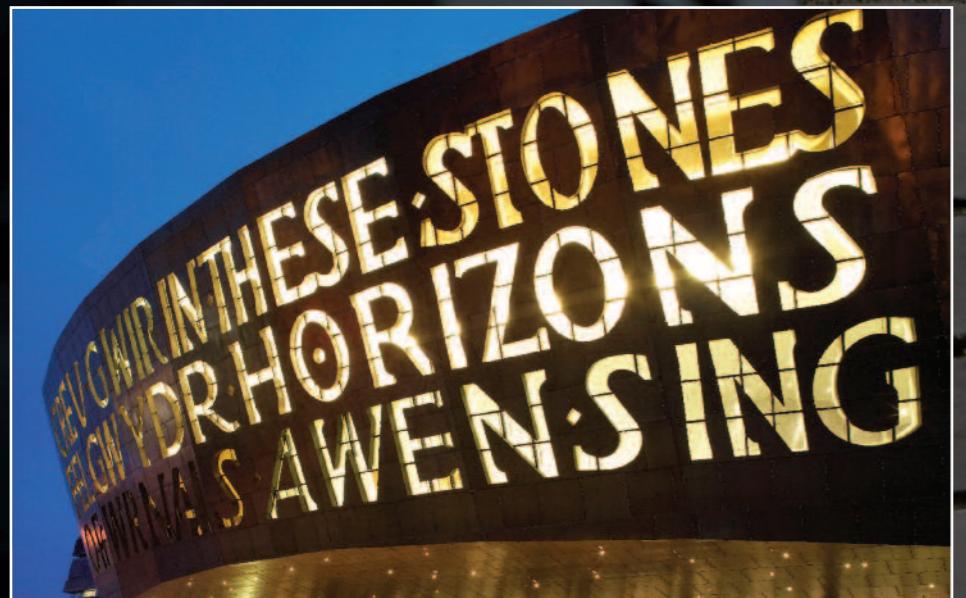
Dr Ruth McElroy is the Director of the Creative Industries Research Institute at the University of South Wales



Image: © S4C Y Gwyll/Hinterland

A national flagship in its second decade

USW Alumnus **Jonathan Poyner** argues that the Wales Millennium Centre is building a nation by bringing people together



'Leaders unite, they don't divide' Sage advice from Bear Grylls to Mike Tindall during ITV's series *Mission Survive*. As business leaders and parents alike will testify, that same advice applies as much in our day to day lives as it does in the jungle. The trick is to find something that people can focus and agree on, that they will all buy into. In the corporate world, this would be the vision and mission – which should be ambitious and inspiring if one is to be sustainable and have a successful future. If our message is motivational and resonates with many on an emotional level, engagement is enhanced. But how is this level of emotional connection created, which fosters a sense of unity?

At the end of 2015, the Chinese President visited the UK at the invitation of the UK government. Prior to that, the Chinese Vice-President visited as part of the People to People Dialogue – choosing Tate Britain in London and various cultural landmarks in Wales, including our National Museum and the Wales Millennium Centre, as the venues to host the delegations and further develop understanding and relationships. At the conference, Jude Kelly, Artistic Director at the Southbank Centre, described how, throughout our entire human history, regardless of culture or continent, we have always drawn, painted and sculpted, as indicated by, for example, cave drawings, carved antlers and decorated temples. It would seem, therefore, that what our

respective governments have sought to focus on for the UK/China engagement has been art and culture. These are areas of our lives that define what it is to be human, offering us the most fundamental opportunities to engage with and understand each other, creating bonds for our respective nations which, although unique, can be universally understood.

Our government in Wales has recognised the value of culture in nation building.

I have seen documents going back to the 1960s which recognised the importance of culture in building a national identity and bringing people together. Our Assembly has been established for around 15 years, and some of the earliest initiatives supported by them have included sport, heritage, education and the arts. In short, there has been a continued focus on our culture, in its broadest sense, highlighting its pivotal role in society.

Our leaders have recognised the importance of culture in unity and fostering better understanding between people, and, as the recent UK/China People to People Dialogue visits demonstrate, culture plays a key role in building and strengthening relationships between nations. Having travelled the world with the army for 10 years prior to returning



to Wales in 1994, I have seen the marked difference in my native country's aspiration; we have a stronger spirit and confidence in our nation, which I believe has been made possible by a focus on culture, for it is culture that unites. At its core, this message is the same whether you are building a family, a team, a company, a nation, or even a global relationship.

The inscription on the front of Wales Millennium Centre in Cardiff Bay presents the words "Creu gwir fel gwydro ffwrnais awen" taken from the poem by Gwyneth Lewis. An approximate translation is "*creating truth like glass from the furnace of inspiration*". The word ffwrnais also means cauldron or pot. When ingredients are combined, heated and agitated in a 'ffwrnais' they create something superior to the individual ingredients alone. This was one of the key intentions for the existence of the Centre – to be a place that brought people together and allowed them to focus on something that unites, that is culture. This summer, for instance, the Centre will launch a brand new biennial music festival, the *Festival of Voice*, drawing in artists and visitors from across the world. With an eclectic range of music over 10 days, the festival will no doubt appeal to an incredibly diverse audience, bringing everyone together over a shared love of music.

Art and culture has stood the test of time; always evolving but never fading.

It provides a point of unity with the power to forge relationships between countries whilst also building proud, confident nations with a strong sense of identity. And so, to return to Bear Grylls, "if leaders unite, and they don't divide", we must focus on what it is that unites, and that is, I believe, culture.

Jonathan Poyner (BA (Hons) Combined Sciences, 1987) is Strategic Director of Business Operations at the Wales Millennium Centre

Creating a space for our next generation

Ben Calvert looks at the University's multi-million-pound expansion of its Cardiff Campus

People who work in the creative sector and the arts don't need to be told that space is important. Space reinforces or even creates behaviour. Creativity is part process, part technique, and a big dose of feeling. So spaces need to allow technical and artistic processes to happen effectively – we need the right kit in the right place – and to also be places that stimulate thought, discussion, challenge, collaboration and originality. Creativity works best when people bounce ideas off one another, so space needs to allow for routine, regular interaction and exchange.

Creativity is an open and often playful process best fertilised by sharing and collaboration, so people need to be able to bump into one another informally as well as formally, talk about each other's work, undertake peer review, challenge each other and have a lot of fun in doing so. That includes the space being consciously open to the outside world and welcoming to the

community of creative practice in the immediate neighbourhood or anywhere in the world that wants to join with us – an extensive physical and digital network based on an 'open arms' set of values.

Albert Einstein once said that "creativity is contagious, pass it on". In the right spaces, it can spread like wildfire.

Like the workings of a brain, signals pulse from one studio space to another, triggering new ideas, actions and innovations. In a decent creative space it is impossible to separate out the process of creativity, or even the outcome or artefact, from the space in which it happens. They are two sides of the same coin.

We have been trying to get this right in the work we have undertaken for our multi-million-pound expansion of our ATRium building in the heart of Cardiff City centre. This is a very different project to creating 'normal' teaching spaces, precisely because the outcomes we are trying to achieve are so distinctive. We've designed spaces in which people can be both imaginative and professional, and that they want to be in. All within a stone's throw of the new BBC Wales HQ and the drama village at Porth Teigr. This expanded creative industries facility makes us the largest provider of creative industries education in Wales; offering something very different from that at the Royal Welsh College of Music & Drama, which is also part of our University of South Wales Group.

Having taken up my post at the University of South Wales a little over 12 months ago, I can see, with a fresh pair of eyes, the natural advantage that Cardiff has to offer students striving for careers in the creative disciplines. There is a unique opportunity for students to work with those creative industry players, both large and small, which are on their own doorstep in a capital city that is itself the heartbeat of creativity in Wales. Yet Cardiff is compact enough for there to be every opportunity to be noticed in the sector; the industry is hungry for new talent and our graduates must be well placed to take advantage of this.



The new facilities we are creating are designed with industry in mind.

It will be a 'porous' facility, a space where the front door is always open to industry, and where professionals feel they can come, use the facilities, share their ideas and show their work. It has to be a venue for creativity as well, fulfilling its primary purpose as a first-class educational facility. To strengthen this industry connection we have appointed an advisory board made up of some of the leading players in UK creative industries.

In my opinion the recipe for 'creating' the very best creatives has three crucial ingredients which we are seeking to provide in our new facility. Firstly, creative industries students need to work with up-to-date technology in order to gain the practical skills demanded by industry. Our new building will have these facilities in abundance. There will be new fabrication workshop facilities to support media, performance and design courses and model-making facilities for animation. It'll include extensive design studio facilities for illustration, advertising, graphic communication, TV and film set design and interior design as well as fashion courses.

The second part of the mix is giving students access to skilled and knowledgeable staff who continue to work in and with industry. Students need to know what 'good' looks like in the industry right now, and we can count among our staff, professionals who continue to be at the peak of their careers in media, fashion, music and animation.

Finally, creative industries students need to learn in an environment which encourages the right behaviours for the industry and fosters original thinking. Often in their professional lives they will work with colleagues from across disciplines, and that is exactly what our new space will achieve. It will be a professional space that facilitates project working with peers across subject areas and also with industry professionals on live projects. We look forward to welcoming the next generation of creative industries students to our new campus when it opens in September 2016. We also hope that it will be a joyous and playful space of serious fun. Please pop in and see what we do. You will be very welcome.



Dr Ben Calvert is Pro Vice-Chancellor for Learning, Teaching and Student Experience at the University of South Wales

Creative education in the city, for the nation

Mark Jackson tells *Impact* how a ground-breaking new education partnership aims to unlock potential in our schools



The University of South Wales has been announced as a founding partner in the Creative Education Partnership Cardiff. Its innovative new proposal will bring together some of the biggest names from the Cardiff creative industries in order to promote creativity at the heart of learning.

Our partnership will forge close working links between Cardiff Council's education provision and the capital's successful creative sector. A brand new secondary school in the west of the city, scheduled to open in September 2017, will act as a 'pathfinder school' to showcase the pilot scheme.

USW will act as the Higher Education lead in the partnership, which aims to offer real-world learning pathways to Cardiff's children and young people, as well as student mentoring, work experience and careers advice on how to make the most of opportunities in the creative and cultural sector.

Joining USW and Cardiff Council in the partnership are Cardiff and Vale College; Creative & Cultural Skills UK; Amgueddfa Cymru – National Museum Wales; BBC Wales, Wales Millennium Centre and Welsh National Opera.

The creative economy is a priority area for the Welsh Government and is now one of Wales's fastest growing sectors. Recent statistics show that the number of people working in this industry in Wales increased by 52% between 2005 and 2014, with nearly 50,000 people now employed by the sector.

The growth in the creative economy in Cardiff in particular presents an exciting opportunity to connect students with a vibrant, dynamic and innovative sector.

The University is committed to transforming the lives of young people and unlocking their talent. As both a key player in Wales's growing creative industries sector and a major provider of teacher training, USW is tremendously excited to be the Higher Education partner in this initiative.

It is essential that we help the next generation put themselves in the strongest possible position to benefit from Cardiff's growing creative economy. A young person's social background should not be a determining factor in deciding whether or not they can build a successful career for themselves.

This initiative builds on the University's recent partnership with Creative & Cultural Skills, the Sector Skills Council for a number of areas within the creative industries.

This commitment makes USW their only Higher Education provider in Wales.

The agreement aims to enhance dialogue between industry and education providers, along with providing a range of additional opportunities for USW students and staff that support the development of creative industries in the UK economy.

Cardiff is well placed to develop innovative schemes such as the Creative Education Partnership between schools, businesses and other bodies in the city.

Our new partnerships all have a strong focus on employability. They aim to ensure that we can provide young people with the appropriate skills and understanding needed to develop successful careers in the creative sector.

It's vitally important that we continue to develop our relationships, business and education, so that young people develop the skills and experience needed to prepare them for employment.

We encourage students to look beyond the 'stars' – the singers, dancers, actors – who have their 15 minutes of fame, and think about the entire industry of people working across a diverse range of roles; those who actually make the large and small productions happen.

Utilising opportunities developed through the education partnership within the school curriculum, we aim to enhance pupils' understanding of the careers available in the sector, and help them make more informed career choices.

This will help develop their confidence in problem solving, innovation and creativity, which are all essential skills for any career in the 21st century, thanks to the fast-changing employment market.



Mark Jackson is Head of the School of Art and Design at the University of South Wales

Breathing new life into animation

The challenge for animation students is to push their learning, argues **Jon Rennie**

The animation industry has had a new lease of life in the UK since the creation of the animation tax credit, alongside the high-end television credit three years ago, and this has since been extended to the computer games industry and now children's programming.

There has been a desire to push creative industries as a major export industry for the UK and this has been especially significant in Wales, where a number of large productions have been attracted, not only by these financial incentives, but also by the skilled crews and artists available locally. For our own company, Bait Studio, which produces motion design and visual effects, alongside our animation production arm Cloth Cat Animation and interactive publisher Thud Media, this has meant we have been able to attract large international projects to our studio and provide a high level of employment for our local crew.

We have had a greatly beneficial relationship with the University of South Wales for a number of years, providing advice and support to staff and also supporting students with animation work experience and sponsoring the end of year awards. Technology has changed considerably since I entered the industry and, when I graduated from the University's Newport campus in 2002, there were few opportunities locally for digital post-production work. Keeping pace with the rapid development in CG and 2D animation has meant that students need a wide knowledge of software and techniques alongside their traditional skills, which include life drawing with pencil and paper.

We have employed a considerable number of USW graduates over the years and continue to hire junior staff regularly. It's important to us to have an active and industry-focused university in the local area. The creative industries are at a challenging time, where digital services are outpacing traditional broadcasters, who are investing less.

There are opportunities for Wales and its considerable talent pool to be at the forefront of new developments.

High-end drama series attracted to the area are already providing new opportunities for us in visual effects support and our animation work has been seen around the world. We're looking at how we can use digital platforms to experiment with new content, and give opportunities for new artists to have their designs and styles seen by a wider audience.

For the University, technology is now at a point where students can learn software and skills semi-independently using online learning and tutorials. The breadth of software and hardware available, and the level of cross-collaboration between each, means that the traditional core skills are even more important for providing students with a high-quality grounding in the basics of compositing, animation or film making.

In the end, all visual arts are in service to the story and the design message and so the individual techniques used are no longer an excuse for poor content.

I didn't have the benefit of online learning and had to teach myself using manuals, but all of that study would have been for nought had I not been taught the language of film making that had begun over 100 years before.

As I write these lines, the visual effects Oscar has been won by a British production, featuring superb invisible effects that enhanced the story. All of these effects can already be done using technology available to the students, so their challenge over the next decade is to learn how to push their learning, to pick up new software and understand its innovations without needing specific tutoring.

Wales, and its student talent, could certainly be the next source of pioneers in animation and visual effects and we're looking forward to being at the forefront of a new generation of digital storytellers.



Jon Rennie (BA Film, Video and Photographic Art, 1999-2002) is a BAFTA winner and Managing Director of Bait Studio, Cloth Cat Animation and Thud Media



Tot the Tiny Tugboat, created by Cloth Cat Animation

Standing out from the crowd

Advertising Design graduates **Annalize Haughton** and **Becky Townsend**, both 21, were talent spotted by creative agency fst at their end of year graduate show in 2015

Their project, entitled *Born to be Mild* which combined Becky's copy writing skills with Annalize's talent for design, won them their current roles at the company.

Impact caught up with the girls as they come to the end of their first year in the job.

IMPACT: Tell us about your roles so far?

BECKY: I was hired as the copywriting half of the creative team. During our first few weeks we were really thrown in at the deep end and were put on different projects so that they could see our different skill sets.

ANNALIZE: I work more on the visual side of jobs, doing a lot of design work as well as creative concepts. As Becky has mentioned, the first few weeks we were thrown in at the deep end, working on projects separately, which was definitely tough at first, but it has really allowed our strengths to shine through and give all of us a better idea of our individual skills and where we fit within the company.

IMPACT: You were spotted at the Design & Advertising Design (D&AD) awards. How did this happen?

BECKY: We were invited to take part in a pitch for D&AD boot camp last year and afterwards, we were introduced to someone that was looking for a creative team. We pitched our portfolio to him on the spot and the next day we received an email asking if we would be interested in applying for the roles at fst.

ANNALIZE: We really weren't expecting everything to happen so fast! I think a big part of it was putting ourselves out there and making sure we were displaying work we were proud of.

IMPACT: What type of projects are you working on in your roles?

BECKY: We can't go into detail about the work we do, as with a lot of agencies we have to sign no disclosure forms upon employment. As fst is a smaller agency, our roles are very hands-on, and we are expected to contribute fully at every stage of a project.

ANNALIZE: So far we've had experience in creative concepts and roll outs for various B2B campaigns. Every week we're working on something new, gaining more and more experience with every brief.

IMPACT: Why did you chose to study advertising design?

BECKY: When applying for university I originally planned to apply for art courses. However speaking to students on the course and attending open days definitely changed my mind, they all spoke highly of the lecturers and the course as a whole.

ANNALIZE: The whole idea of university appealed to me, but due to lack of confidence it seemed so unattainable. I eventually plucked up the courage to choose this particular course because it would allow me to be creative, while still giving me the knowledge and skills I needed to break into an exciting industry and start my career.

IMPACT: How did the course prepare you for industry?

BECKY: Nothing can prepare you completely for what you'll face upon entering the real world. However the course instilled into me the fundamental knowledge of how to build an engaging campaign and solve the problems of my clients. University gave me the confidence to stand up and pitch my ideas, which is an important part of our industry.

ANNALIZE: The main thing the course provided me with was confidence. The confidence to believe in my own opinions and ideas, to craft and improve my creative concepts and to stand up and pitch them to my peers. We had several opportunities to work with live clients and briefs from local agencies, and this was great experience. We dealt with clients first hand and got honest feedback which is so important.

IMPACT: Any hints or tips for anyone graduating this year who wants to get into your industry?

BECKY: Don't pigeon hole yourself. If you're a designer try to experience copywriting, if you're a copywriter get a crash course in photography, the more you can add to your skillset the better position you'll be in once you've left. Also, try and get as much agency experience as you can – I really regret not doing this while I was still a student.

ANNALIZE: Get to grips with the software as soon as possible! I started the course with no software knowledge whatsoever, and I forced myself to learn it as quickly as possible. Also, have an online platform, make sure your CV and LinkedIn is always up to date. The more eager and clued up you appear, the more appealing you are to potential clients; people like to see creatives with a spark about them.





Women Writers and the Disappearing Dragon

Diana Wallace warns against the vanishing of women's writing

In Erica Wooff's novel *Mud Puppy*, the protagonist Daryl sculpts a solid lifesize dragon out of mud on the banks of the River Usk in Newport. Not only is this not what the US businessman who commissioned the artwork is expecting (the original plans were for a glass and steel structure), but, as it is publicly unveiled, the mud dragon is already slipping away, washing back into the alluvial mud, drawn by the tide into the natural world of pure energy.

Wooff's mud dragon is a wonderfully suggestive metaphor for the unexpected possibilities of art, and how it may escape or exceed the ways in which we try to quantify the contribution of the creative industries to the national culture.

It's also a metaphor for the ways in which art can both symbolise and critique notions of nationhood.

The dragon is built out of the land of Wales itself, the earth and water from which we evolved, and returns to it.

Published in 2002, *Mud Puppy* is part of a post-devolution flowering of women's writing in Wales. Writers such as Wooff, Trezza Azzopardi, Rachel Tresize, Tiffany Atkinson, Fflur Dafydd, Tiffany Murray, Angharad Price, Zoe Strachan, Maria Donovan, Mary Ann

Constantine, Nikita Lalwani, Catrin Dafydd – joined an earlier generation – Menna Elfyn, Ruth Bidgood, Christine Evans, Stevie Davies, Siân James, Catherine Merriman, Sheenagh Pugh – in producing fiction and poetry which represents the creative potential of Wales to the world.

Indeed, women's writing has never been so visible or so vibrant in Wales. It was Gwyneth Lewis, the first National Poet of Wales, who wrote the poem which shines in letters six feet high on the front of the Wales Millennium Centre in Cardiff Bay, putting women writers right at the centre of the nation. The outgoing National Poet is another highly-regarded woman poet, Gillian Clarke, and the editors of the major journals in Wales are currently all women: Emily Trahair at *Planet*, Nia Davies at *Poetry Wales* and Gwen Davies at *New Welsh Review*.

In addition we have the thriving and invaluable Welsh women's press, Honno, established in 1986. Honno's popular anthologies have given new names a first chance at publication and their Welsh Women's Classics series, edited by Jane Aaron, Emeritus Professor at the University of Wales, republishes neglected texts by Welsh women, bringing them to a new generation of readers.

Here at the University of South Wales the women students and alumni of our postgraduate Creative Writing programmes had a bumper year in 2015. They garnered a sheaf of prizes and awards, including the Manchester Poetry Prize (£10,000) for Lucy Ingrams and the Troubadour International Poetry Prize (£5,000) for Barbara Marsh.

It seems that women writers have come a long way and that their contribution to Wales's creative industries cannot be doubted.

And yet, Daryl's disappearing dragon offers us a metaphorical warning. Because *Mud Puppy* is about to go out of print and its publisher, The Women's Press, is no longer active. As Honno's Classics series reminds us, women's writing has had a disturbing tendency to vanish from view. We need to be vigilant to stop that happening to this new generation of writers.



Diana Wallace is Professor of English Literature at the University of South Wales where she teaches and researches mainly women writers

Language and learning

A bilingual creative sector is an asset for Wales, argues **Lisa Lewis**

The great Welsh historian John Davies argued that Wales is an artefact created by broadcasting; we can probably extend the metaphor now to include the creative industries as a whole, one of the fastest growing sectors in Wales and one of the priority areas of development for the Welsh Government.

Culturally, the creative industries provide opportunities to express, mediate, and convey the broad diversity of who we are and what we think. It is the sphere in which we discuss the matters of the day, from the everyday mundane to the deeper philosophies of life. For many of us in Wales the creative industries are constructed in and through two languages, and subsequently have a strong Welsh language dimension. In this context cultural content has a direct correlation with the economic imperative; that is, Welsh language culture contributes positively to the economic picture, and in terms of employability bilingualism is an asset.

The creative industries have their own intrinsic value as producers of high quality content and materials, but they also have a broader remit in terms of their public value in educational and economic terms.

Serving an important social and community function in Wales, parts of the creative industries create events and narratives that bind communities and reflect their experiences and aspirations. Welsh-language performance culture has a well-established history in this respect, with a variety of companies, including a national theatre company, leading the way in Wales as well as putting Wales on the global stage. In this context the creative industries drive what we do communally – we watch TV, listen to the radio, participate in fashion, attend the theatre etc. But the creative industries are also institutionalised in ways that represent the nation, bringing value to it, for instance through S4C.

S4C has performed wonders in a time of great economic uncertainty, enabling Welsh independent television companies to lead the way in terms of provision and having a real impact on economic recovery. In providing the platform for Welsh language animation, S4C has paved the way for a remarkably successful and rich animation culture in Wales. During the 1980s successes such as *Super Ted* (*Siriol*) and *Sam Tân or Fireman Sam* (*Bumper Films*), were marketed worldwide. This tradition continues today through collaborative productions such as *Boj* (2014), between Cardiff based animation company Cloth Cat Animation, Pesky Productions (UK) and Kavaleer Productions (Ireland) which debuted on CBeebies, S4C, ABC Australia as well as several other broadcasters around the world. In this way investment in the Welsh language has created new knowledge-intensive creative industries.

Welsh language media production, through Welsh broadcasters BBC Cymru Wales and S4C, has had an important role to play in strengthening the infrastructure for the language. In addition to the rich Welsh language provision produced for S4C, landmark productions such as *Y Gwyll/Hinterland*, produced by S4C, independent

company Fiction Factory and BBC Cymru Wales, show the success and the potential of joint multi-lingual productions in the UK and beyond. Continuing from the successes seen in animation, the ability to produce work in two languages, through back-to-back Welsh / English productions, has resulted in *Y Gwyll/Hinterland* being sold to 30 territories across the world. The evidence of the appeal of the Welsh language version (watched with subtitles) signifies an interest in the cultural and linguistic aspect of the experience as an inherent part of the drama itself – drama with local flavour and a global reach. This formula heralds a growing tradition for writing and production across broadcast media that represents the nature of a truly bilingual country.

The importance of the creative industries to Wales cannot be underestimated, economically, socially and culturally.

Working closely with industry, the University of South Wales has a strong role to play in the development of the creative industries in Wales, facilitating the narratives about who we are, and how we see ourselves in relation to the world. The role of the Welsh language in this is imperative, facilitating a representation of the culture of the nation in all its diversity. Working with Coleg Cymraeg Cenedlaethol, the University ensures placements and projects with industry are a core part of the undergraduate experience. Through industry ties our students are able to benefit from a range of Welsh and English work experience opportunities, a response to the growing demands of a thriving bilingual creative industry in Wales and the significance of multilingualism the world over.



Dr Lisa Lewis, Reader in Theatre and Performance at the University of South Wales



Scientists aim to mimic plants to discover new clean fuel source

Dr Gareth Owen, senior lecturer in inorganic chemistry, is leading a three-year research project which aims to discover new ways to form a clean source of fuel by mimicking the chemical reactions in plants. As part of the programme, funded by a £191,000 grant from the Leverhulme Trust, a team led by Dr Owen is looking to copy processes carried out during photosynthesis to increase the production of hydrogen.

"Photosynthesis is one of the most important processes in nature - it's the starting point in the food chain and replaces oxygen in the atmosphere," he said.

"Nature does this by just using just water, carbon dioxide and sunlight. The efficiency of such transformations which occur in nature are astonishing, while scientists have attempted to mimic them over the years, they have been met with limited success."

Complementing work that is already being carried out worldwide on so-called 'artificial leaf projects', the USW research team is looking at new ways to significantly increase the amount of hydrogen that can be produced by using chemical processes to break down water into its constituent parts – hydrogen and oxygen. The process requires a complicated combination of metals and specifically-designed molecules called ligands, and making sure they are in exactly the correct positions for the whole process to work," Dr Owen added.

"The aim of the research programme is to expand the efficiency of the process, which is currently quite limited. This could obviously have a major impact globally. Being able to reduce water to its constituent components - oxygen and hydrogen - could produce an infinite source of clean energy, which is the ultimate aim of researchers working in this field."

@USWResearch

Graduate Research Office is among top five UK universities

The results of the latest International Student Barometer survey show that the University's Graduate Research Office ranks amongst the top five universities in the UK for international student support. The worldwide barometer also positions the Graduate Research Office's support for international students within the top 12 participating universities worldwide. The Student Barometer surveys international students studying across the globe.

Respondents are asked to reflect on aspects of their experience and institution, assessing satisfaction levels and enabling participating universities to benchmark their performance.

Dr Elaine Huntley, USW's Postgraduate Research Manager, said: "The results of the recent International Student Barometer demonstrate the consistent high-quality support service available to research students across the University."

"The Barometer provides invaluable insights into our student experience and reinforces the importance of providing a one-stop-shop for advice and support to our research students."

@USWResearch

Low NOxTechnology – Helping Glass manufacturers reduce pollution levels

USW Engineering research, funded by the Carbon Trust and the EU, has led to the development of patented furnace design which enables glass manufacturing companies to reduce their emissions of Nitrogen Oxide (NOx).

This technology can be applied to both End Fired and Cross Fired regenerative glass furnaces, reducing the NOx emissions from these furnaces to a level below that required by current local and European legislation. The technology has been trialled with manufacturers in Europe, showing highly positive results. The original research was conducted by the University's Faculty of Computing, Engineering and Science in collaboration with French gas supplier, GDF Suez (now called ENGIE) and a Scottish burner supplier, Global Combustion Systems.

The USW team is led by Professor Steve Wilcox, Head of Engineering and Director of the University's Engineering Research Centre.

@USWEngineering

Dermatology product helps plastic surgeons improve patient care

Computing research carried out by Peter Plassman and Carl Jones, from the Faculty of Computing, Engineering and Science, has led to a successful new product to help doctors improve patient care. The 3D LifeViz™ Mini, compact 3D camera is used for skin analysis and simulation of the face. This is particularly useful for plastic surgeons, dermatologists and aesthetic doctors to improve their patient's follow-up care using different measurement capacities allowing before-after treatment comparison in 3D.

The product was developed by University of South Wales spin-out company Photometrics Imaging, with an industry partner from France. It is the first portable camera system capable of skin analysis and simulation and was awarded the prize for 'Best Aesthetics Device' at the 2015 Paris Aesthetics Show.

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