Quick Reference

Please note that you must read this full Call document for guidance before submitting your proposal.

Digital Economy Theme

Telling Tales of Engagement Competition 2020

Call type: Invitation for proposals

Key Information

<table>
<thead>
<tr>
<th>Funding available</th>
<th>Up to three public engagement awards are available; £10,000 each (100% FEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of funding</td>
<td>Grant</td>
</tr>
<tr>
<td>UKRI funder(s)</td>
<td>EPSRC</td>
</tr>
<tr>
<td>Co-funder(s)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Overview

The Digital Economy Theme is running a competition designed to help capture and promote impact arising from existing Digital Economy research grants supported by one of the UKRI Digital Economy Theme partner councils: EPSRC, ESRC or AHRC. Applications are open to teams as well as individuals, across all career stages in academia (including PhD students), industry, users and the third sector. Applicants must demonstrate tangible impact, and plans for successful public engagement in the context of COVID-19.

Assessment Process: Entries will be assessed by the external Digital Economy Programme Advisory Board members (https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/digital-economy-theme-strategy/pabmembership/) against the assessment criteria detailed in the call document.

Key Dates:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing date for applications</td>
<td>16 December 2020, 16:00</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Assessment Panel</td>
<td>February 2021</td>
</tr>
<tr>
<td>Grant start date</td>
<td>1 April 2021; up to 18 months duration</td>
</tr>
</tbody>
</table>

Only one application for a Telling Tales of Engagement award is accepted per Digital Economy research grant.

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Digital Economy Theme: digitaleconomy@epsrc.ukri.org
Opportunity Summary

The Digital Economy (DE) Theme is running a competition designed to help capture and promote the impact arising from DE research supported by one of the UKRI DE Theme partner councils: the Engineering and Physical Sciences Research Council (EPSRC), Economic and Social Research Council (ESRC), or the Arts and Humanities Research Council, (AHRC). Three prizes of £10,000 are available to support researchers or users in any sector to further tell the story of their previously funded DE research grant impact in an interesting and engaging way. Applications are open to teams as well as individuals, across all career stages in academia (including PhD students), industry, users and the third sector.

Applications must demonstrate tangible impact and plans for successful public engagement in the context of COVID-19. This funding aims to help researchers find innovative methods to engage diverse audiences despite the challenges posed by the closures of many institutions and social distancing measures, as well as other impacts of the ongoing COVID-19 pandemic.

The Telling Tales of Engagement (TTE) 2020 competition has three aims:

1) To capture the impact and benefits that DE Theme-funded research is having, how this impact unfolded and what benefits to society and the economy have been, or are expected to be, delivered through your
research, particularly highlighting any impacts that are relevant in the context of the COVID-19 pandemic;

2) To help the wider research community learn examples of best practice in research and project partner engagement from your experiences;

3) To engage the public with DE research, focusing on ensuring audiences are diverse and activities are inclusive, and finding innovative ways to involve the public in the context of COVID-19 restrictions, while helping to address UKRI’s equality, diversity and inclusion agenda.

To be eligible to apply, the proposed activity must be associated with an existing EPSRC, ESRC or AHRC-funded Digital Economy research grant (please note that training grants such as CDTs are not eligible). Please contact us if you are unsure whether your grant is eligible. Only one application for a TTE award is accepted per DE research grant.

To apply, please complete the SmartSurvey: https://www.smartsurvey.co.uk/s/DE-TTE-2020/ by 16:00, 16 December 2020.

Submissions to this call will not count towards the EPSRC Repeatedly Unsuccessful Applicants Policy.

Who can apply
Applications are open to researchers associated with a previously funded DE research grant supported by one of the DE Theme partners, EPSRC, ESRC or AHRC. Applications are open to teams as well as individuals, from all career stages in academia (including PhD students), industry, users and the third sector. If the applicant would not normally be eligible for EPSRC funding, please include the name of a mentor who is eligible, for example, the PI of the previously funded associated grant. Only one application for a TTE award will be accepted per DE research grant, and per applicant.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: https://epsrc.ukri.org/funding/applicationprocess/fundingguide/

A list of eligible organisations is provided at https://www.ukri.org/funding/how-to-apply/eligibility/.

What we’re looking for

Synopsis
The Telling Tales of Engagement Competition (TTE) has the ambition of promoting the impact of applied Digital Economy research. UKRI defines impact as 'the demonstrable contribution that excellent research makes to society and the economy’. Impact embraces all the diverse ways that research-related skills benefit individuals, organisations and nations. These include (but are not limited to):
• Fostering global economic performance and specifically the economic competitiveness of the United Kingdom;
• Increasing the effectiveness of public services and policy;
• Enhancing quality of life, health and creative output.

A key aspect of this definition is that the potential impact must be demonstrable. It is not enough just to focus on activities and outputs that promote engagement, such as staging a conference or publishing a report. Evidence of the research impact is required to demonstrate, for example, that it has been taken up and used by policy makers or has led to improvements in society. Therefore, applicants are encouraged to carefully design their demonstrable public engagement activity (please see Appendix A and B). In addition, careful consideration of how research impacts could be benefit a diverse community and society could help to draw out even more demonstrable outputs from your activity. Please see Appendix A for more information on previous TTE awards.

The COVID-19 pandemic has caused fundamental changes in how we work, socialise, network and communicate as a society. Increasingly rapid digitalisation of human communication has accelerated the transition to virtual socialising, online knowledge-sharing and technologically-mediated immersive cultural experiences. We are keen to see examples of creative, innovative and inclusive public engagement in the context of COVID-19 restrictions.

We encourage applicants to consider the target audience(s) for their proposed engagement activities from an equality, diversity and inclusion perspective. We are interested in seeing activities that engage with different community groups, ages, gender identities, ethnicities, abilities, neurodiversity characteristics, social classes, incomes, levels of digital literacy etc., where appropriate. We are particularly interested in engaging digitally excluded audiences, or those typically disenfranchised or underrepresented in the Digital Economy research space.

Successful applicants will be provided with guidance by UKRI for developing their EDI plans. Please refer to Appendix B for examples of potential audiences to engage with.

**Scope**

Your entry **must** be associated with a previously funded DE Theme research grant. It should focus on telling the tale of how this research grant’s impact arose, and capture elements of any engagement with partners in an interesting and engaging way.

The three aims of the Telling Tales of Engagement (TTE) competition are:

1) To capture the impact and benefits that DE Theme-funded research is having, how this impact unfolded and what benefits to society and the economy have been, or are expected to be, delivered through your research, particularly highlighting any impacts that are relevant in the context of the COVID-19 pandemic;

2) To help the wider research community learn examples of best practice in research and project partner engagement from your experiences;
3) To engage the public with DE research, focusing on ensuring audiences are diverse and activities are inclusive, and finding innovative ways to involve the public in the context of COVID-19 restrictions, while helping to address UKRI’s equality, diversity and inclusion agenda.

Your entry must address the following:

A. Your research and its impacts:
   - What was the main research challenge of the associated DE research grant? What were the key outputs?
   - What has been the societal and economic impact of these outputs? What individuals or community groups did the research have an impact on?
   - What positive changes have resulted from your research, and how did these changes come about? Can you showcase a diverse range of impacts resulting from your work? What evidence can you provide to demonstrate these positive changes or impacts?
   - How did you go about engaging with any partners on the project?

B. Your proposed Telling Tales of Engagement activity(ies):
   - How do you propose to ‘tell the story’ of your demonstrable impact(s)?
   - What kind of public engagement do you propose to have with your target audience?
   - Which sectors of society or members of the public will you seek to engage with and why?
   - How will you incorporate an element of audience interaction? How will you ensure that you engage with the public in a creative and meaningful way, for mutual benefit?
   - How will you ensure your engagement is successful in the context of ongoing COVID-19 restrictions?
   - How has equality, diversity and inclusion been taken into account in your public engagement activities? Are you engaging audiences that are, for example, diverse in age, gender identity, ethnicity, ability, neurodiversity, social class, income or digital literacy, or audiences that are typically disenfranchised or underrepresented in the Digital Economy space?
   - How will your public engagement contribute to the further development of your research and impact?

C. Your plans for dissemination within the DE research community:
   - How do you plan to share your understanding of the overall impact process with other parts of the DE research community, who may not be so advanced in their thinking and practice? This could help
researchers set impact-related goals and metrics and help UKRI provide further guidance on impactful research.

Your entry should tell the story of how your impact pathway unfolded in practice, clearly linking the research to its impact: describing how the impact arose, explaining how you went about engaging with partners, and evidencing a diverse range of positive, demonstrable changes.

Your story should help the wider research community and public understand how engagement and impact occurs in practice. Allowing you to tell the story of your engagement should enable the spread of best practice within the research community. A good TTE project will help others to stimulate their thinking on more imaginative and illustrative ways to tell the story of their engagement and enhance the impacts and benefits of their research.

Please see Appendix B for some guidance from previous TTE award winners.

**Funding Available**

Three awards of £10,000 each are available to support an activity, or activities, that will allow you to tell your impact story in a creative, interesting and engaging way to a wider audience and the general public. Please note that funding is **not** available to conduct further research.

Activities could include (but are not limited to): video or podcast production, outreach activities in schools, in-person or online public lecture series, community events, artistic interpretation, specialised media training or attendance at high profile, non-academic focused conferences, online interactive or immersive experiences, virtual reality, etc. Please refer to the Appendices for further suggestions and examples of previously funded activities.

The funding will support projects of up to 18 months in duration, starting from April 2021.

If you are successful, payment will be made to your HEI, who will then be responsible for issuing the award and ensuring funds are released as required. EPSRC reserve the right to retain 40% of the total funding until an account of the expenditure has been submitted from the University Finance Office.

**How to apply**

Applications should be submitted via SmartSurvey [https://www.smartsurvey.co.uk/s/DE-TTE-2020/](https://www.smartsurvey.co.uk/s/DE-TTE-2020/) by **16:00, 16 December 2020**.

The questions in the SmartSurvey are detailed below:

<table>
<thead>
<tr>
<th>Section</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant details</td>
<td>Full name, organisation, department, position</td>
</tr>
<tr>
<td>Applicant email address</td>
<td></td>
</tr>
<tr>
<td>Mentor details (optional)</td>
<td>If applicant would not normally be eligible to apply for EPSRC funding, please provide details of an eligible mentor</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Associated Digital Economy grant details</td>
<td>Grant title, grant reference number, PI name</td>
</tr>
<tr>
<td>Research area relevance to DE Theme priorities (up to 500 words)</td>
<td>Please describe the research area that you are working in, how it is related to the funding you have received from the DE Theme (or relevant associated funding from EPSRC, ESRC or AHRC), and how it relates to the DE Theme priorities (please refer to Appendix C in the call document for the full priority descriptions).</td>
</tr>
</tbody>
</table>
| Overview and key impacts and benefits arising from the associated DE Theme grant (up to 500 words) | Please provide an overview of the research carried out through the associated DE grant, and the impacts and benefits it has had, addressing the following questions:  
- What was the main research challenge of the associated DE research grant? What were the key outputs?  
- What has been the societal and economic impact of these outputs? What individuals or community groups did the research have an impact on?  
- What positive changes have resulted from your research, and how did these changes come about? Can you showcase a diverse range of impacts resulting from your work? What evidence can you provide to demonstrate these positive changes or impacts?  
- How did you go about engaging with any partners on the project? |
| Your proposed Telling Tales of Engagement activity(ies) (up to 1,000 words) | Please describe how you propose to use the award to further ‘tell the story’ of the research and enable further impact, addressing the following questions:  
- How do you propose to ‘tell the story’ of your demonstrable impact(s)?  
- What kind of public engagement do you propose to have with your target audience?  
- Which sectors of society or members of the public will you seek to engage with and why? |
| Your plan for dissemination within the DE research community (up to 500 words) | Please describe your plan for dissemination within the DE research community, addressing the following questions:

- How do you plan to share your understanding of the overall impact process with other parts of the DE research community, who may not be so advanced in their thinking and practice? This could help researchers set impact-related goals and metrics and help UKRI provide further guidance on impactful research. |

| Resources and management, and risk mitigation (up to 500 words) | Please explain how you plan to spend the £10,000 award money, including a breakdown of costs required for various resources. (This may also cover details of any of savings made as a result of effective management.)

Costs must be specific to the project and should be justified to add demonstrable value to the project. Resources eligible under FEC can be requested, for example, to cover training in public engagement or communications, public engagement specialist staff expertise and support, materials/venue costs or travel expenses.

Please note that the TTE awards are not eligible for extensions beyond the 18 month funding period. Therefore, this section should also include a risk mitigation strategy for possible... |
You will be notified of the result as soon as possible following on from the assessment panel.

Entrants should note that the visual summary PDF submitted may be made publicly available, and successful entries may be used in future TTE calls and engagement material. Therefore it is advised that:

- No material that is confidential is included in the application;
- The necessary permissions to share the information are sought in advance from the relevant individuals.

**How we will assess your application**

Entries will be assessed by the external Digital Economy Programme Advisory Board members ([https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/digitaleconomy-theme-strategy/pabmembership/](https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/digitaleconomy-theme-strategy/pabmembership/)) against the assessment criteria detailed in the call document.

**Assessment Criteria**

**Strength of DE research impact and benefits evidenced from associated grant** (primary criterion), including:

- Evidence provided of a positive, demonstrable change and benefits arising as a result of this research.
- Fit of research to DE Theme priorities (please refer to Appendix C).

**Potential scope for further impact** (primary criterion), including:

- Appropriateness of plan for ‘telling the story’ for the intended audience.
- Evidence of well-developed activities proposed to highlight the impact story.
- Evidence of how the engagement strategies will contribute to the development of their research and impact.

**Creativity and quality of approaches to public engagement whilst addressing the UKRI Equality, Diversity and Inclusion agenda** (primary criterion), including:

- Degree to which equality, diversity and inclusion has been taken into account in planning of engagement activities.
- Degree of creativity used in approach to public engagement with the community being targeted.
• Degree to which the proposed activity would add demonstrable value to the sphere of DE research.

**Clear plan for sharing understanding of the research impact process with the wider DE research community** (primary criterion), including:

• Strength of plans to disseminate best practice, lessons learnt and features of a successful research project to the wider research community.

**Resource management** (secondary criterion):

• Appropriateness and justification of resources requested.
• Appropriateness of mitigation plans for identified risks.

**Grant additional conditions (GACs)**

Grants will be subject to the standard UKRI grant conditions, however, the following additional grant conditions will be added to this call. The additional grant conditions include:

• **GAC 01 Publication and Acknowledgement of Support**
  The Grant Holder must make reference to Digital Economy Telling Tales of Engagement 2020 and funding supported by any of the UKRI Councils which are partners in the Theme, and include the Digital Economy Theme logo and relevant branding on all online or printed materials (including press releases, posters, exhibition materials and other publications) related to activities funded by this grant.

• **GAC 02 Equality, Diversity and Inclusion Plan**
  The Grant Holder is expected to prepare an equality, diversity and inclusion plan for the duration of this grant to demonstrate good practice in equality, diversity and inclusion throughout the lifetime of this funding award. This must be recorded through the grant reporting process.

**Feedback**

Feedback will not be provided.

**Additional Information**

**Background**

The DE Theme strives to rapidly realise the positive transformational impact of digital technologies on aspects of community life, cultural experiences, working lives, future society and the economy.

Led by EPSRC in partnership with ESRC and AHRC, the Digital Economy (DE) Theme is about much more than just digital technologies. It’s about how we as human beings interact with the digital world: how we live with it, and how it affects us.
This is why a defining feature of the DE Theme has been the way that it brings researchers together across a wide range of very different disciplines, uniting ICT, mathematical science, engineering, social sciences, economics, arts and humanities with stakeholders in different application domains to create digital technologies, platforms and solutions that are designed with and for users of the digital technology. The DE Theme aims to address key societal challenges and enable social change across a wide number of different key sectors (including, but not limited to, energy, transport, healthcare, education and skills, services, government, and the creative industries).

In its first 10 years, the DE Theme has invested more than £200 million in outstanding research. And because the Theme is all about real-world impact, it has brought researchers together with businesses, government bodies, charities and public organisations, bringing in over £80 million in additional funding, and supporting work with direct, practical applications (https://epsrc.ukri.org/newsevents/pubs/a-decade-of-success-in-the-digital-economy/).

The Digital Economy Theme has developed the following five priority areas (https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/):

- Trust Identity Privacy and Security
- Content Creation and Consumption
- Beyond a Data Driven Economy
- Sustainable Digital Society
- Equitable Digital Society

The priority areas reflect the broad relevance and remit of DE research, and form the basis for the majority of DE Theme funding. Please refer to Appendix C for the full priority descriptions.

People and societal challenges are at the heart of Digital Economy research, and public engagement and other impact activities play a significant role in the DE research process. Research conducted in this area should have an impact on users and society, and increasing the public engagement activities with the Digital Economy community is important. The DE Theme has recognised the importance of impact and has conducted significant review exercises around this (https://epsrc.ukri.org/newsevents/pubs/digital-economy-report-of-the-2012-rcuk-digital-economy-impact-review-panel/).

We also recognise that telling the story around the economic and societal benefits arising from DE Theme-funded research, and how researchers went about making their research impactful, can provide an opportunity for other researchers to learn elements of best practice as well as provide inspiration to the next generation of researchers. The latter is important, because the long term strength of the UK research base depends on harnessing all the available talent. This will help to connect the research landscape to accelerate impact, which can also be leveraged from accessing talent through equality, diversity and inclusion, both of which are two of the 12 priorities of the EPSRC Delivery Plan (https://epsrc.ukri.org/newsevents/pubs/deliveryplan2019/).
For more information about EPSRC’s portfolio and strategies, please see our website: [https://epsrc.ukri.org/research/ourportfolio/](https://epsrc.ukri.org/research/ourportfolio/).

### Supporting Documentation

#### Appendix A: Telling Tales of Engagement award legacy

A decade of success in the EPSRC Digital Economy Theme was celebrated in March 2019, at the BT tower, where the DE programme was launched in 2009. The event showcased some of the best Digital Economy research ([https://epsrc.ukri.org/newsevents/pubs/a-decade-of-success-in-the-digital-economy/](https://epsrc.ukri.org/newsevents/pubs/a-decade-of-success-in-the-digital-economy/)) and include some previous TTE award outcomes, including:

- Seeing the person (page 12)
- Tales of Things and Electronic Memory (TOTeM) (page 20)

Some of the work carried out during the TTE awards from previous years is listed below (Google Chrome browser preferred):

<table>
<thead>
<tr>
<th>Year</th>
<th>TTE Project</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 2019 | The MOMENT | Performances:  
- Live Cinema III Conference 2020  
- The MOMENT – immersive theatre  
- Brain-controlled movie tour |
| 2017 | Human Robot Interaction (HRI) for School Teachers Engage with Machines (STEM) | Social media coverage:  
- Tweets from ORCA [1] [2] [3]  
- Media  
- Workshop  
- Government event |
| 2016 | #Scanners: The Disadvantages Of Time Travel | Press coverage:  
- BBC News  
- Sky News  
- Daily Mail  
- A feature at BBC Click  
- Screenings in Hong Kong headlined reporting of the Spark festival in the South China Morning Post  
- Influential online technology forums also picked up on the interactive system developed, which was the subject of articles for Futurism  
- MIT Technology Review in English, Urdu and Spanish |
| 2012 | Art Maps 2012 | Papers:  
- ArtMaps: Interpreting the Spatial Footprint of Artworks. CHI2015 (SIGCHI Best of CHI Honorable) |
Mention Award 2015, Association for Computing Machinery, SIGCHI - Computer-Human Interaction).


Peer reviewed conference abstracts:

- Art Maps - Putting the Tate Collection on the Map. EVA London 2014 - Electronic Visualisation and the Arts.

Invited talks:

- Crafting Experiences for Online and On-Site Engagement with Cultural Resources at the ‘First Historical-Cultural Forum of the Russian World’ organised by the Russian Mir Foundation. Veliky Novgorod (Russia), October 10th 2014.

Press coverage:

- RAI (Italy’s National Public Broadcasting Company) Regional News Coverage. 25 June 2014.

How-to session:


It is not a requirement for the TTE award holders to collaborate with other TTE award holders. However, this is allowed if this is beneficial for your project and you can clearly take ownership of your side of the project. Please note that it is a requirement to have different associated grant and different teams.
Appendix B: Guidance from previous TTE award winners

Opportunities

The Telling Tales Engagement (TTE) award holders from the previous years suggested the following as potential opportunities to explore as part of the award. These opportunities include (but are not limited to):

- To extend current public engagement activity and to explore a different perspective of your Digital Economy research. To “integrate and describe the industrial, cultural and academic strands of the project”.

- To explore new public engagement platforms and innovative methods of public engagement, which are core to Digital Economy research.

- To disseminate TTE activities within your network in order to identify new opportunities and interests and thus help to extend or consolidate your networks further.

- To identify and connect to stakeholders, project partners or networks across different sectors on the DE public engagement landscape that lies within core DE research.

- To nurture new affiliations in relation to your DE research.

- To further develop experience in planning and delivering public engagement events on your DE research in engaging ways.

- To encourage a framework that stresses the importance and benefits of having a diverse team.

- To encourage you to be proactive in seeking advice from organisations, institutions and or networks you think is appropriate to help you meet the aims of your TTE award.

- To make use of this public engagement training ground for your research team.

- To use this landscape for brand building of your DE research.

- To be mindful of the barriers in your DE research management and to devise smart working to leverage the most out of this opportunity for example by making the project, idea or team sustainable.

- To use this as an opportunity for generating new and innovative ideas associated with the public engagement aspect of your DE research.

- To create a framework to engage with different communities, groups of people who belong to different career sectors, cultures or ethnicities.

- To ambitiously explore the meaning of the EPSRC Digital Economy theme vision to the use of applied DE research to draw upon societal and economic benefits.

- To make use of the long term strength of the UK, which is dependent on harnessing all the available talent including that which can be leveraged from working as well as engaging with multidisciplinary diverse teams.
Potential audiences to engage

We encourage applicants to consider the target audience(s) for their proposed engagement activities from an equality, diversity and inclusion perspective. We are interested in seeing activities that engage with different community groups, ages, gender identities, ethnicities, abilities, social classes, incomes, levels of digital literacy etc., where appropriate. We are particularly interested in engaging digitally excluded audiences, or those typically disenfranchised or underrepresented in the Digital Economy research space.

Some of the audiences and context that previous TTE winners have interacted with include:

- Schoolchildren of all ages, genders, with and without disabilities
- Older adults
- Local community centres and clubs
- Royal Society summer exhibition in collaboration with ORCA hub
- Biggar Science festival
- Universities and community cinema screens
- Conferences and events such as DE CDT summer schools
- Screenings UK and abroad
- Panel discussions
- Museums late
- Edinburgh Fringe Festival
- Science Saturday family event
- Edinburgh International Science festival
- Touring cinema
- Being Human Festival
Appendix C: Digital Economy Theme Priorities

The five Digital Economy (DE) Theme priority areas have been developed through engagement with the research active community, and reflect the Theme's long-term strategic goals. These priorities are at the heart of Digital Economy Theme research. The example research questions provided are not exhaustive. We welcome research proposals which can address these priorities within a range of contexts, including major societal issues such as the COVID-19 pandemic and the net-zero agenda.

Content Creation and Consumption

Creating and consuming digital media, games, and interactive software can be diversified and made more accessible. In content creation, there is significant potential to support wider application of digital creativity techniques and technologies across many domains.

Creative content methodologies have already been deployed with impact in education and community campaigning, and there is likely to be significant scope for further impact not only in the creative industries, but in sectors such as manufacturing and healthcare. For content consumption, the diversification of the set of devices and platforms through which content is accessed offers exciting research challenges. As people increasingly use heterogenous combinations of devices, including within smart environments, there is scope for research in richer, more responsive user experiences.

Tackling this research priority will require fundamental changes to how we view creativity and digital expression. Key to this is the investigation of intelligent tools, processes and platforms, which make it easier for expert and non-expert users to generate, disseminate, understand, customise and retrieve digital content. At the same time, we must ensure content authenticity, provenance, and intellectual property rights, while investigating new approaches to human-algorithmic interaction and the rationale behind data-driven or automated decision-making.

Examples of high-level research questions include: What are the application domains and novel tools and methods that will support contextually broadened content creation and consumption? What prototypes and other interventions will enable, motivate and illuminate the overcoming of specific challenges in new domains? How can we realise the full impact potential of existing digital creativity techniques across video and games? What are the content creation and consumption opportunities for using mixed reality, generative AI and responsive media, for research in the creative economy and more widely? And how can the unengaged community be engaged and how can resistance to accepting research ideas be overcome by using creative techniques, for example, through the provision of demonstrators, evidence frameworks and technology enablers?

The creative industries’ landscape can be revolutionised by amplifying the knowledge that is exchanged and shared between researchers with different levels of expertise and background, particularly across sectors which are not traditionally associated with one another, and where experience-centred approaches and design thinking could potentially enhance value. This could mean the integration and convergence of technologies and taking account of the varying perspectives of different types of user behaviours, backgrounds and
cultures to create tools for new immersive experiences and digital personalisation of products.

Advances are needed in AI, human-computer interaction, software engineering and sociotechnical understanding to underpin this, and research should be undertaken in collaboration with artists, designers, social scientists, entrepreneurs and psychologists, and others.

**Beyond a Data-Driven Economy**

The dramatic explosion of data over the last decade has changed the way society operates. The emergence of the data-driven economy has created new opportunities for businesses and stimulated research and innovation to harness the power of the ever-expanding volume of data.

Digital platforms underpinned by this data are driving de-centralisation of the digital economy, enabling a dynamic gig economy, in which everyone has the potential to become a producer and consumer. Data can be considered as an enabler to create new businesses models to help address key challenges across the economy and society through the democratisation of information; for example, in healthcare, the supply chain (e.g., food, manufacturing), sustainability, transport, crime and the creative economy. But the fast pace of these transformations means many of these changes are poorly understood, with siloing of data creating concentrations of socio-economic power with limited stakeholder governance.

The ‘Beyond a Data-Driven Economy’ priority focuses on addressing these issues by considering both the impacts and opportunities that the data-driven economy will have on individuals, businesses and governments. The key focus of this thematic area is the range of challenges and opportunities for business; however, it will also need to address the commensurate challenges of governance and government.

Examples of high-level research questions include: How do/will the emerging technologies underpinned by data enable new products or services and change the way they are delivered? How does the proliferation of data impact the individual, the world of work, and the breadth of the private sector? How can data analytics be implemented to aid business strategies? What’s the potential of using decentralised platforms underpinned by trusted data for transport, supply chains or the creative industries? How can the security implications of the sharing economy be addressed? Will decentralisation lead to citizens being empowered to better manage personal data through selling or leasing their data, education, digital literacy or policy? What are the ethical considerations of data commodification and data sharing for AI? In addition, advances are needed around distributed ledgers, data analytics, AI, ethics and policy, decentralisation of data control/access, security in the sharing economy and cryptocurrencies.

A significant outcome would be for this priority to address how markets can harness and learn from data, including how new technology can enable businesses to create and adopt new business models, and how these changing models of value may affect the way we work, and change the way we interact with individuals, businesses and government. This should include good governance of data-driven platforms, and issues of fairness and equality around new models of value emerging in the data-driven economy.
A holistic, people-centred systems approach should be taken; the needs, attitudes and behaviours of individuals who interact with the digital systems for businesses being considered at the heart of any research proposal. Research is needed to understand how society and businesses want to operate in the human-driven data economy and how to harness the opportunities that will arise. The collection, buying, selling and leasing of data are emerging issues in this area, so it is important that researchers consider Responsible Research and Innovation and ethics, good governance and societal impact when developing new business models or platforms. Hence, proposals should focus on the ‘how’ rather than the ‘what’ in terms of products and services and aim to facilitate adoption through the integration of the consideration of societal attitudes, technical challenges, law and regulatory matters.

**Equitable Digital Society (EDS)**

Digital technologies are having a profound effect on the organisation of societies and the practices of everyday life. However, the benefits of the digital economy are not equally distributed, for example between different age groups and socioeconomic backgrounds. In some cases, digital technologies are creating new challenges of social division and inequality.

The Equitable Digital Society priority focuses on addressing these issues by challenging the assumption that technology alone is sufficient, and instead promotes the co-creation and design of appropriate digital technologies and services that will support a fairer, more inclusive society. Crucially, this will require academia, industry, the third sector, government and other relevant organisations to work together to identify and prioritise citizens’ needs to define a shared vision for an Equitable Digital Society and how it can be achieved. The aim is to reach greater social, political and economic inclusion, and to support social cohesion, whilst minimising the emergence of new spheres of exclusion. This may enable greater creativity, productivity and enhanced wellbeing of all citizens.

Examples of high-level research questions include: How can the potential for technology and whole system/service design be realised to make socioeconomic life fairer? Can decentralisation play a part in empowering citizens through control and access of their data? In a future world where artificial intelligence may become pervasive, how will automated decision-making by algorithmic classification be governed? How can we ensure that data-driven decision-making does not result in prejudice and discrimination, and that citizens are equipped to challenge algorithmic decisions? How can negative consequences due to online harms be predicted and prevented? How can digital technologies address the challenges of adoption and use of technology across societies, for example in addressing the issues faced by those who are unwillingly not in the Banking system? What are the changes required to achieve an Equitable Digital Society that can be addressed by sociotechnical, applied research?

An ambitious outcome would be the judicious use of digital technologies and services across all societies which supports inclusion, equality, participation and social justice.

To align with this priority, research should commit to a co-creation approach with a wide range of citizens, including both socioeconomically advantaged and disadvantaged communities, and ensuring a range of cultural perspectives.
Processes for these citizens’ engagement, consultation and representation in the design and use of digital technologies, platforms and services should be incorporated into the research. An Equitable Digital Society should aim to realise digital benefits for all, empower the disempowered, and create technologies that will reduce inequalities and shape inclusive societies to help reach the best version of our increasingly digitalised world.

**Sustainable Digital Society**

Climate change and other anthropogenic impacts on the environment are a persistent and growing threat worldwide. Whilst digital technologies have potential to bring about social, economic and cultural benefits, increasingly, they are associated with growing ecological burdens and social divisions. This sociotechnical priority focuses on the use of digital technologies to address anthropogenic environmental impacts and improve environmental sustainability, whilst considering the ongoing impacts associated with the creation and use of the digital technologies themselves, to ultimately create a Sustainable Digital Society.

This priority encompasses not only the development of new technologies, but new digitally inspired business models, processes and policies (within the public, private and third sectors), focusing on environmental and social impacts, as well as economic benefits. New forms of governance and new types of supply chain will be needed to enable organisations and societies globally to implement new and more sustainable processes, whilst ensuring all members of society have agency with regards to sustainability.

Examples of high-level research questions include: How can novel digital technologies be used to shift patterns of consumption and foster more sustainable ways of living and economic arrangements? How can we explore the tensions between the push for increasing digitalisation and the associated energy costs and environmental impacts? What sociocultural and policy challenges must be addressed in order to enable the widespread adoption of sustainable technologies? How can policymakers and businesses understand the needs and preferences of large numbers of individuals via digital technology? How can digital technologies be made sustainable end-to-end – from conception through to design and development, to maintenance, upgrade or evolution, and decommissioning?

An ambitious outcome would be for digital technologies to enable a re-imagining of the current organisation of global societies into alternative, more sustainable arrangements in all aspects of everyday life, and to empower the public as a force for positive change across the public, private and third sectors. To ensure that research undertaken creates a more sustainable future, it must be situated in deep understanding of the how social and digital actors come together. Research in this area will, therefore, require an interdisciplinary and global approach, combining technical research with research across the social sciences, environmental sciences, business, humanities and the arts.

The coming together of academia, industry, the public, charities and policymakers, as well as international collaboration, is key to creating a Sustainable Digital Society. This priority is linked to Responsible Research and Innovation (RRI). Applicants must should demonstrate evidence of their
consideration of the environmental impacts of their research activities, and how these impacts will be mitigated.

**Trust, Identity, Privacy and Security (TIPS)**

Complex, pervasive, highly connected digital systems are integral to daily life – from ordinary citizens to industrial and government infrastructures. Societal trust is now in danger of being disrupted by digitally mediated means, such as the increasing proliferation of fake news and ‘deepfakes’, widespread application of facial recognition technologies, interference in electoral processes and recurring security breaches. This priority focuses on interdisciplinary, sociotechnical research that fully integrates the needs of the people and organisations who use, operate and run digital systems; ensuring they are safe, secure, reliable, trustworthy, legally compliant, and ethically sound.

Research should consider trust, identity, privacy and security at scale and via automatic means, and the tension between what works for an individual, what works for a group and what works for the public at large. Moreover, further research is needed to understand the ‘security gap’: the apparent dissonance between the availability of solutions to security issues, and shortfalls in their adoption. Adventurous, disruptive research is required to develop new models for security that navigate this complex ecosystem and ensure a successful and resilient digital economy for all.

Examples of high-level research questions include: How can we build digital technologies which mitigate for increasing lack of societal trust whilst still embracing the opportunities that the digital economy can bring? How do we trade off transparency and accountability with privacy and security to create an inclusive digital economy for social good that works at scale and across different cultures, perspectives and social constructs? How do we protect the interests of the individual and build confidence that digital economy services will use personal information responsibly, while enabling new commercial and societal opportunities for innovation? How can new technologies be built to fight crime in a digital context?

The outcome of impactful research in this area is that security, privacy and trust will be inherent in digital systems that work easily, efficiently and effectively, and society will be better prepared and better able to deal with critical challenges. Citizens will have control over their privacy and an intuitive understanding of the security trade-offs they make day to day, and can trust that their identity and individual values will be respected with regards to how they engage with the digital economy.

Achieving this research challenge will require fundamental advances in security and privacy within computer science, mathematical sciences and engineering. However, even if one can demonstrate strong trust in a technical sense, human or societal aspects of trust do not always align, so research must consider social and cultural aspects in an integrated fashion.

**Related Content**

The Digital Economy Telling Tales of Engagement competition has been run annually since 2011. For further details and a list of previous award winners,
Please see: https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/activities/telling-tales-of-engagement-awards/

An Equality Impact Assessment has been completed for this call. Please see here: https://epsrc.ukri.org/funding/calls/digital-economy-telling-tales-of-engagement-competition-2020/

Please refer to the following general guidance on EPSRC policy:

- Resubmissions
- Use of animals
- Responsible research and innovation
- Ethical considerations
- Equality, Diversity and Inclusion
- Conflicts of interest
- DORA

**Change log**

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