

PATT40



The 40th Pupils' Attitudes Towards Technology Conference

Conference Programme

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Hosted by



**LIVERPOOL
JOHN MOORES
UNIVERSITY**

Version 7 [03/11/2023]



The 40th International Pupils' Attitudes Towards Technology Educational Research Conference

Liverpool John Moores University, Liverpool, United Kingdom
Tuesday 31st October to Friday 3rd November 2023

URL: <https://patt40liverpool.edublogs.org/>

e-Proceedings: <https://openjournals.ljmu.ac.uk/index.php/PATT40/index>

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WhatsApp: <https://chat.whatsapp.com/LV8Oz0ctvpm5aDcZRP1XKR>

Twitter (X), Instagram, and Threads: @patt40liverpool

Conference Committee

***Matt McLain** (Conference Chair), Liverpool John Moores University, United Kingdom*

***Sarah Davies** (Editor-in-Chief), Nottingham Trent University, United Kingdom*

***Alison Hardy** (Communications Director), Nottingham Trent University, United Kingdom*

***David Morrison-Love** (Poster Coordinator), University of Glasgow, United Kingdom*

***Bhav Prajapat** (Programme Coordinator), University of Brighton, United Kingdom*

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***Phil Jones** (Events Coordinator), Upton Hall School, United Kingdom*

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***Simone Norman** (Workshop Coordinator), Sutton High School, United Kingdom*

***Claire Vickery** (Podcast Coordinator), Wadham School, United Kingdom*

Official Conference Photographer

***Mike Martin**, Liverpool John Moores University, United Kingdom*

PATT40 Liverpool 2023



VENUE

Blackburne House, Blackburne Place, Liverpool, L8 7PE, United Kingdom.
<https://www.blackburnehouse.co.uk/>

WIFI

Main hall	Network: <i>Conference</i>	Password: <i>Blackburne</i>
Other	Network: <i>BH External</i>	No Password

COORDINATES

53.39993938248595, -2.9706266900651674

WHAT3WORDS

[///ticket.beside.cook](https://www.what3words.com/ticket.beside.cook)

VENUE PARKING

<https://bit.ly/46gw5cY>



GENERAL PARKING

<https://bit.ly/45eCTWZ>



Day #1

Tuesday 31st October 2023

08:00-09:00 **Lobby**
Registration

09:00-10:00 **Eleanor Rathbone Hall**
Welcome: *Matt McLain and Professor Marc de Vries*

Parallel Sessions	Eleanor Rathbone Hall (max. 120) Session 1A <i>Moderator: Remke Klapwijk</i>	Emma Holt Suite (max. 70) Session 1B <i>Moderator: HildaRuth Beaumont</i>
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10:05-10:30 **Paper 1**
Fuller, K. & Steeg, T.
Subject Knowledge in D&T Teacher Education: Exploring the Gaps.

Paper 2
Morrison-Love, D. & Patrick, F.
The Adaptive Subject Pedagogy Model: Understanding Pre-service teachers' Pedagogical Reasoning in Design and Technology Education.

10:30-10:55 **Paper 3**
Engström, S., Sundqvist, P., Nordlöf, C. & Klasander, C.
Approaches to Industrial Processes in Technology Textbooks.

Paper 4
Tzeng, S. & Yu, K-C.
Rethinking Measures of Attitude Toward Technology in Technology Education.

10:55-11:20 **Paper 5**
Westerhof, M., O'Kane, C. & Duffy, G.
Developing Spatial Reasoning Skills Through Designing Origami: Advancing Maker Education Pedagogy with Maker Études.

Paper 6
Cederqvist, A-M. & Högstöm, P.
Developing Student Teachers' PCK for Teaching Technology with a Sustainability Edge in Primary School.

BREAK & REFRESHMENTS

Parallel Sessions	Eleanor Rathbone Hall (max. 120) Session 2A <i>Moderator: Piet Ankwicz</i>	Emma Holt Suite (max. 70) Session 2B <i>Moderator: Osnat Dagan</i>
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11:45-12:10 **Paper 7**
Lucas, D., Strimel, G. & Santana, V.
Reinventing Secondary School: An Investigation of a Polytechnic School Model Focused on Industry/Community-driven Design Projects.

Paper 8
Axelsson, J., Kilbrink, N. & Asplund, S-B.
Subject Specific Pedagogy in Technical Vocational Education: the Implementation of a New Way of Teaching.

12:10-12:35	<p>Paper 9</p> <p>Engström, S. & Lennholm, H.</p> <p>Authentic Teaching in STEM Education: Factors for Success.</p>	<p>Paper 10</p> <p>Ringvold, T.A., Strand, I., Haakonsen, P. & Strand, K-S.</p> <p>Artificial Intelligence Text-to-Image Generation in Art and Design Teacher Education: A Creative Tool or a Hindrance to Future Creativity?</p>
12:35-13:00	<p>Paper 11</p> <p>Sundler, M. & Hultmark, E.</p> <p>Students' Reasoning About Sustainable Development in Relation to Products' Life Cycles.</p>	<p>Paper 12</p> <p>Farrugia, R., Farrugia Caruana, L. & Pule', S.</p> <p>Fostering Creativity Through Design and Technology Education.</p>

LUNCH

Parallel Sessions	<p>Eleanor Rathbone Hall (max. 120) Emma Holt Suite (max. 70)</p>	
	<p>Session 3A Session 3B</p> <p><i>Moderator: Jeff Buckley</i> <i>Moderator: Martin Fislake</i></p>	
14:00-14:25	<p>Paper 13</p> <p>Lemon, R., Sutherland, C. & Fowler, A.</p> <p>Rupe Rere Nui: Place-based Storytelling in Robotics with Māori-medium Students.</p>	<p>Paper 14</p> <p>Moriyama, J., Yamamoto, T., Muramatsu, H., Taguchi, H., Yang, P., Otani, T., Miyagawa, Y., Kikuchi, A., Ueno, K. & Watanabe, S.</p> <p>A New Framework of Technology and Engineering Education Proposed by the Japan Society of Technology Education.</p>
14:25-14:50	<p>Paper 15</p> <p>Jones, V. & Trent, D.</p> <p>Social Emotional Learning and its Framework for Technology Education.</p>	<p>Paper 16</p> <p>Gullberg, A., Andersson, M., Ivarsson, J. & Söderberg, H.</p> <p>How does 'Matter' Matter in Technology Education?</p>
14:50-15:15	<p>Paper 17</p> <p>Hallström, J., Nordlöf, C. Norström, P. & Schönborn, K.</p> <p>Authenticity in Integrated STEM Education – Boon or Fantasy? Observing Upper Secondary Technology Classroom Practice.</p>	<p>Paper 18</p> <p>Nakahara, H., Sera, K., Uenosono, T., Katsumoto, A. & Moriyama, J.</p> <p>Grasping the Actual Situation of Student's Perspectives on the Improvement of Manufactured Products and User Perspective in Material Processing Learning.</p>

BREAK & REFRESHMENTS

Parallel Sessions	Eleanor Rathbone Hall (max. 120) Session 4A <i>Moderator: Ellinor Hultmark</i>	Emma Holt Suite (max. 70) Session 4B <i>Moderator: Jonas Hallström</i>
15:45-16:10	Paper 19 Grobler, R. & Ankiewicz, P. Developing the Professional Knowledge of Technology Student Teachers Via a Parallel Approach: A Longitudinal Study.	Paper 20 Forsell, C. & Westerlind, P. Students' Perception about Mechanical Stress and What is Most Important for Learning, during a Practical Task, Using Digital Interactive Lab Description.
16:10-16:35	Paper 21 Brink, H. Gifted Students' Needs in Technology Education.	Paper 22 Furse J., Ortiz, C., Yoshikawa-Ruesch, E., & Lloyd, H. Mentoring on Early-Career Technology and Engineering Teachers.
16:35-17:00	Paper 23 Svenssson, M., Thorén Williams, A. & Sanders, D. Teachers' Perceptions and Impressions of the Forest and the City as a Starting Point for Teaching Biomimicry.	Paper 24 Yoshikawa Ruesch, E. & Furse, J. Influence of Pre-professional Organizations on TEE Students.

RETURN TO ACCOMODATION & GET SOMETHING TO EAT

19:00-21:00

OPTIONAL: Suggested Informal Social Activity

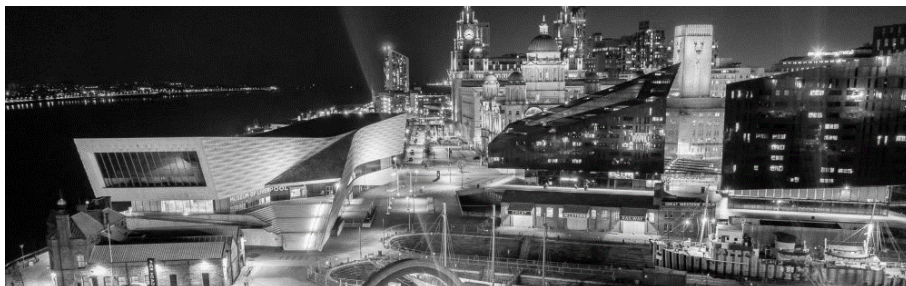
River of Lights 2023

River of Light is a completely free, self-guided trail with no need to book or buy tickets. Plan your visit in advance and use the map at the link below to plan your route.

The Conference Committee suggest that you team up with old and new friends, and meet at Installation #1 'Lampshades Bouquet' on Strand Street (what3words

///quarrel.soda.singer) to experience the River of Light exhibition in small groups to catch up with old friends and make new ones!

<https://www.visitliverpool.com/riveroflight/>



Day #2

Wednesday 1st November 2023

08:00-09:00	Lobby Registration	
09:00-10:00	Eleanor Rathbone Hall Reflection on Day #1 & Panel Discussion: <i>the impact of the knowledge turn on technology education, chaired by Alison Hardy</i>	
Parallel Sessions	Eleanor Rathbone Hall (max. 120) Session 5A <i>Moderator: Liam Maquet</i>	Emma Holt Suite (max. 70) Session 5B <i>Moderator: Ruth Lemon</i>
10:05-10:30	Paper 25 Sultan, U. Bergfeldt, B. & Sjöstedt, E. Using Movie-making to Visualise Pre-service Teachers' Perceptions of Technology.	Paper 26 Yauney, J. & Bartholomew, S. What Attracts Children to Computer Science?
10:30-10:55	Paper 27 Hurdelbrink, C. & Engström, S. Different Textbooks in Technology Education: Different Opportunities for Developing Disciplinary Literacy.	Paper 28 Schröer, F. & Tenberge, C. Technology Education Considering Children's Needs: Evidence-based Development of Inclusive Materials for Learning with Robots at Primary Level.
10:55-11:20	Paper 29 McDyer, M., Buckley, J., Dunbar, R., Blom, N. & Seery, N. Problematising and Unpacking the Uncertainty of Design Within Technology Education.	Paper 30 Bartholomew, S., Barnum, E., Jackson, A., Mentzer, N. & Yauney, J. The Impact of Teacher Preferences in Learning by Evaluating.

BREAK & REFRESHMENTS

Parallel Sessions	Eleanor Rathbone Hall (max. 120) Session 6A <i>Moderator: Bhav Prajapat</i>	Emma Holt Suite (max. 70) Session 6B <i>Moderator: Scott Bartholomew</i>
11:45-12:10	Paper 31 Perez, A., Svensson, M. & Hallström, J. Student Teachers' Preconceptions of Programming as a Content in the Subject Technology.	Paper 32 Sultan, U. Girls' Technological Knowledge.

12:10-12:35	<p>Paper 33 Björlin Svozil, L. The Utensil and the Tool: Making Definitions Gender Inclusive.</p>	<p>Paper 34 Gomersall, S. The Initial Findings of the Healthy Lifestyles Project: A Practical Design and Technology Cooking and Nutrition Programme for Primary Schools.</p>
12:35-13:00	<p>Paper 35 de Lavoir, S.V.P., den Otter, M-J., de Vries, M. & Barendsen, E. Characterising Structure-Property Reasoning within a Chemical Design Challenge: ‘Green Bubble Soap’.</p>	<p>Paper 36 Greenhalgh, A. “If D&T wasn’t so easy, I wouldn’t be so good at it”: Nonverbal Ability and Confidence.</p>

LUNCH

Parallel Sessions	<p>Eleanor Rathbone Hall (max. 120) Session 7A <i>Moderator: Kay Stables</i></p>	<p>Emma Holt Suite (max. 70) Session 7B <i>Moderator: Manus McDyer</i></p>
14:00-14:25	<p>Paper 37 Solomka, O. Masculinities and Femininities in the Design and Technology Classroom.</p>	<p>Paper 38 Kwon, H., Jeong, J., Lee, Y., & Kim, E. Implementing Engineering Based STEM Programs in High School Classrooms in the Republic of Korea.</p>
14:25-14:50	<p>Paper 39 Hallström, J. & Ankiewicz, P. What is Design Volition? Implications for Technology Education.</p>	<p>Paper 40 Lind, J. Primary School Students’ Perception of Technology.</p>
14:50-15:15	<p>Paper 41 Harvey, N. & Ankiewicz, P. Teaching Values in Technology Education through Co-Design: Teaching Values Through Co-design.</p>	<p>Paper 42 Walan, S. & Brink, H. Pupils’ Reflections on the Use of a Digital Self-assessment Tool to Identify and Measure Development of 21st Century Skills During Maker Activities in Schools.</p>

BREAK & REFRESHMENTS

Parallel Sessions	Workshop 1 Emma Holt Suite	Workshop 2 June Henfry Suite	Workshop 3 Eleanor Rathbone Hall
15:30-17:00 <i>See pages 15 and 16 for workshop details.</i> Sign up on the Registration Desk in the Lobby	<i>Animated film bridging science, technology, and art with the UN sustainable goals.</i> B. Bergfeldt, E. Sjöstedt & U. Sultan. Max. 10 places	<i>Comics as Pedagogy: Ways of Knowing, Expressing and Communicating.</i> J. Burns, D. Campbell, C. Reid & N. Seery. Max. 20 places	<i>Roundtable discussion on 'Maker Education Meets Technology Education: reflections on good practice'.</i> R. Klapwijk, M. de Vries, J. Williams, W. Fox-Turnbull, J. Buckley, H. Beaumont & M. Westerhof. Max. 35 places

SHORT BREAK TO FRESHEN UP

17:30-21:00

‘Formal’ Social Activity:

Walking Tour of Liverpool City Centre

Meet at 17:30 in Eleanor Rathbone Hall for a briefing and to be assigned to a group.

Starting at the Hope Street ‘Suitcases’ sculpture (see below) opposite Blackburne House and ending at *Tempest*, on Tithebarn Street in the city centre, with a bowl of scouse and a drink, with the opportunity to relax and network. Make sure that you wear comfortable footwear and dress for the weather! Scouse is a traditional Liverpudlian meat stew, and a vegetarian option (known as ‘blind scouse’) is available; as is a choice of beer or a soft drink. The *Tempest* have given us exclusive access for the night, and we can stay and network until closing time!

Note: the tour guide reps will be around earlier in the day to help get everyone added to the app they are using to enhance the experience – we will email and link to download the app in advance.



Image from: <https://www.geograph.org.uk/photo/5244026>

Day #3

Thursday 2nd November 2023

08:00-09:00

Lobby

Registration

09:00-10:00

Eleanor Rathbone Hall

Reflection on Day #2: *Sarah Davies (Editor-in-Chief)*

Keynote: *Tony Ryan, CEO Design and Technology Association*

Parallel Sessions

Eleanor Rathbone Hall (max. 120)

Session 8A

Moderator: Ulrika Sultan

Emma Holt Suite (max. 70)

Session 8B

Moderator: Greg Strimel

10:05-10:30

Paper 43

Jones, P.

Preliminary study of how 21st Century Skills are Developed During a Participatory User-centred Curriculum Intervention at Key Stage 3 in Design and Technology.

Paper 44

Brännkärr, P. & Porko-Hudd, M.

Great expectations: A Finnish Perspective on International Students' Choice of University-level Craft Courses.

10:30-10:55

Paper 45

El Fadil, B. & Najjar, R.

Teaching Variables and Functions at the Secondary Level in a STEM Context.

Paper 46

Klapwijk, R.

Secondary Students Intrinsic Motivation during Multidisciplinary STEAM projects.

10:55-11:20

Paper 47

de Haan -Topolscak, S., Vos-de Tombe, P. & Ebskamp, M.

Experiences in Pedagogy of Design: Research and Design Teachers Frame of Reference About the Concept of 'Model'.

Paper 48

Morgan, C. & Wells, J.

Technological and Engineering Design Based Learning: Promoting Upper Elementary Graphical Device Comprehension.

BREAK & REFRESHMENTS

Parallel Sessions

Eleanor Rathbone Hall (max. 120)

Session 9A

Moderator: Emily Yoshikawa-Ruesch

Emma Holt Suite (max. 70)

Session 9B

Moderator: Wendy Fox-Turnbull

11:45-12:10

Paper 49

Spendlove, D.

Do No Harm 2.0.

Paper 50

Axell, C. & Boström, J.

Unveiling Biases: An Exploration of ChatGPT-3.5-generated 'Technology Stories'.

12:10-12:35

Paper 51

Dagan, O., Ragonis, N. & Goldman, D.

Paper 52

Bjursten, E-L. & Gumaelius, L.

Insights from the Implementation of the Course “Development of an Interdisciplinary STEM Project Via PBL Approach” in an ‘Integrative STEM Education’ MEd Program.

How do Swedish Technology Teachers Assess Programming Education in Grade 4-6?

12:35-13:00

Paper 53

Hamade, D. & Landherr, J.
Teacher Training in Robotics: Evaluating the Implementation of Robotics and Teachers Motivation and Self-efficacy Towards Robotics.

Paper 54

Lin, T-J., Buckley, J., Gumaelius, L. & Ampadu, E.
Situating Spatial Ability Development in the Craft and Technology Curricula of Swedish Compulsory Education.

LUNCH

Parallel Sessions

Emma Holt Suite
(max. 70)
Session 10A
Moderator: Emily Yoshikawa-Ruesch

Gillian Reynolds Suite
(max. 20)
Session 10B
Moderator: Wendy Fox-Turnbull

June Henfry Suit
(max. 50)
Session 10C
Moderator: Bhav Prajapat

14:00-14:25

Paper 55
Hultmark, E.
To See Reason: Technology Teachers’ Interventions and Students’ Reasoning in the Design Process.

Paper 56
Penning, I.
“The main thing is practical work”: Teachers’ Beliefs Supporting the Intellectual Development of Technology Education.

Paper 57
Beaumont, H. & Steeg, T.
All You Wanted to Know About D&T But Were Afraid to Ask?

14:25-14:50

Paper 58
Buckley, J.
Considering the Credibility of Technology Education Research: a Discussion on Empirical Insights and Possible Next Steps.

Paper 59
Maquet, L., Benedičič, U., Dunbar, R., Buckley, J., Duffy, G. & Sorby, S.
The Challenges of Implementing a Spatial Ability Intervention at Secondary Level.

Paper 60
Wiemer, T. * & Rothe, M.
Augmented Reality to Support Self-directed Learning in Practical Technology Teacher Training: Presentation of the SelTecAR Project and Investigation of the Conditions for Success.

14:50-15:15

Paper 61
Keirl, S.
Artificers, Satisficers and Optimisers: Echoes of Simon and ‘Ways of Being’ in Design and Technology Education.

Paper 62
Emami, N.
Transferring Knowledge from One Context to Another.

BREAK & REFRESHMENTS

15:30-17:00

Eleanor Rathbone Hall

Breakout Activity:

Informal poster presentations (see conference proceedings) alongside a marketplace event, with D&T suppliers and supporting organisations the Design and Technology Association (D&TA), Technology Supplies Ltd, Institute of Engineers and Technologists (IET), and Vex Robotics UK.

RETURN TO ACCOMODATION & GET READY FOR THE GALA EVENT

19:00 – 23:00

Conference Gala Dinner

Museum of Liverpool, Pier Head, Liverpool, L3 1DG

Enter via the Mann Island steps, facing the Albert Dock
(see photo below)

what3words ///paying.magma.lush

7.00pm Drinks Reception in The People's Republic Gallery, on the second floor overlooking Pier Head and the iconic Liver Building, with entertainment from the 'Long Haul Rattlers' sea shanty choir.

7.30pm Gala Meal in the Museum Lobby, on the ground floor. Wine will be available on tables and there will be a cash bar.

Liverpool city centre is a vibrant area, with a wide range of bars and clubs to suit all tastes, for anyone wanting to party the night away!

DRESS CODE! PATT is a fairly informal and relaxed community, and we want delegates to be comfortable and *not* have to pack tiaras and tuxedos. So, the dress code for the gala meal is *smart casual*, or 'come as you are (or want to)' – dress up if you wish!



Image from: <https://www.liverpoolecho.co.uk/whats-on/museums-galleries-free-visit-liverpool-15741947>

Day #4

Friday 3rd November 2023

09:00-10:00 **Eleanor Rathbone Hall**
 Plenary: *Marc de Vries (PATT Series Coordinator) & Matt McLain (PATT40 Chair)*
 PATT41 Nanjing 2024 promo: *Quiyue (Crystal) Yang, Hubei University of Technology, China*

Parallel Sessions	Eleanor Rathbone Hall (max. 120)	Emma Holt Suite (max. 70)
	Session 11A <i>Moderator: Wendy Fox-Turnbull</i>	Session 11B <i>Moderator: Jeff Buckley</i>

10:05-10:30	Paper 64 Beaumont, H. Teaching Food Technology Through the Narrative of Food.	Paper 65 Norström, P., Engström, S. & Fahrman, B. Timeless, Socially Relevant Engineering Knowledge and Skills for Future Technology Education.
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10:30-10:55	Paper 66 Lemon, R. Professional Learning Opportunities for the Hangarau Māori-medium Technology Curriculum.	Paper 67 Bartholomew, S., Barnum, E., Yauney, J. & Wilcock, K. The Impact of an Integrated Literacy and Design Activity on Student Attitudes Toward Coding.
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10:55-11:20	Paper 68 Mburu, P.K. Understanding the Head of Department Role: Leading Design and Technology.	Paper 69 Zrada, M. Impact of a Creative Design Course on Undergraduate Learners' Creative Confidence.
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BREAK & REFRESHMENTS

Parallel Sessions	Eleanor Rathbone Hall (max. 120)	Emma Holt Suite (max. 70)
	Session 12A <i>Moderator: Suzanne Gomersall</i>	Session 12B <i>Moderator: David Morrison-Love</i>

11:45-12:10	Paper 70 Rutland, M. & Seabrook, R. Tackling Food Poverty: The Role and Importance of Food Education in United Kingdom Schools.	Paper 71 Benedičić, U., Maquet, L., Duffy, G., Dunbar, R., Buckley, J. & Sorby, S. Implementation and Analysis of a Spatial Skills Course for Secondary Level STEM Education.
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12:10-12:35	<p>Paper 72 Fox-Turnbull, W., Wu, S., Stafford, M. & Mayo, T. Embedding Computational Thinking into Authentic Technology Practice.</p>	<p>Paper 73 Buckley, J., Seery, N. & Kimbell, R. Modelling Approaches to Combining and Comparing Independent Adaptive Comparative Judgement Ranks.</p>
12:35-13:00	<p>Paper 74 Blom, N., Canty, D., Lane, D. & O'Connor, S. Developing Technology Students' Hierarchical Thinking During Iterative Processes of Designing Through Sketching Activities.</p>	<p>Paper 79 Halliwell, A., Mason, A. Hardy, A. & Ellis, C. Redesigning the Design and Technology Curriculum in England: Led by Teachers.</p>

LUNCH

Parallel Sessions	<p>Eleanor Rathbone Hall (max. 120) Session 13A <i>Moderator: Bhav Prajapat</i></p>	<p>Emma Holt Suite (max. 70) Session 13B <i>Moderator: Sarah Davies</i></p>
14:00-14:25	<p>Paper 75 Hellard, A. Engaging Object Agency: New Ways of Design Learning and Being in the Museum.</p>	<p>Paper 76 Mburu, P.K. & Silveira, V. Promoting Creativity in the Secondary Design and Technology Classroom in England.</p>
14:25-14:50	<p>Paper 77 Canty, D., Blom, N., O'Connor, S. & McCarthy, M. Supporting Initial Teacher Education Students Assessment Literacy and Capability Development.</p>	<p>Paper 78 Halliwell, A. Exploring the Use of Peer and Self-Assessment as a Pedagogical Tool in UK Secondary Design Education.</p>
15:00-15:15	<p>Eleanor Rathbone Hall Closing remarks: <i>Matt McLain</i></p>	

REFRESHMENTS DEPART



Image from: https://unsplash.com/photos/i_Dlg4xWIT8



Image from: https://unsplash.com/photos/a-stature-of-a-blue-and-yellow-dog-in-front-of-a-building-_obsqzu4iN0

Outline of Workshops

15:45-17:00 Wednesday 1st November 2023 (Day #2)

Visit the conference website for full dates of each workshop at:

<https://patt40liverpool.edublogs.org/workshops>

WORKSHOP 1

Animated film bridging science, technology, and art with the UN sustainable goals.

Room: Emma Holt Suite

Presenters: Barbro Bergfeldt, Erik Sjöstedt & Ulrika Sultan.

Summary: This is an interactive workshop where participants can experience making an animated short film using iPad and Stop Motion. By making a film the participants will be aware of the learning process and interaction between different disciplines. Participants will use clay to visualise what technology can be.

Numbers: max. 10

WORKSHOP 2

Comics as Pedagogy: Ways of Knowing, Expressing and Communicating.

Room: June Henfry Suite

Presenters: Jane Burn, Deaglán Campbell, Clodagh Reid, and Niall Seery.

Summary: This workshop is a collaborative effort among a technology educator, a designer, and a librarian, aiming to harness the power of comics for future thinking. Comics are viewed as an ideal medium for visualizing and communicating ideas, transcending textual literacy barriers. The workshop explores multiple approaches, from teaching students to create comics to using them as tools for teaching various subjects and levels. It emphasizes the accessibility and engagement comics offer, making complex information more understandable. The workshop seeks to bridge different disciplines, demonstrating how comics can be applied in technology, design, and library science, ultimately highlighting their value in education and fostering creativity.

Numbers: max. 20

WORKSHOP 3

Roundtable discussion on ‘Maker Education Meets Technology Education: Reflections on Good Practices’.

Room: Eleanor Rathbone Hall

Presenters: P John Williams, Marc de Vries, Remke Klapwijk, Wendy Fox-Turnbull, Jeff Buckley, HildaRuth Beaumont (formerly known as David Barlex) & Marten Westerhof.

Summary: During this roundtable discussion, two fields will meet, technology education with its long history, and Maker Education, a relative new shoot in the educational field. Both focus on learning through making and both value agency and motivation of learners. During the round table we will invite all participants to reflect with us on maker education practices across the world and relate these insights to technology education. The purpose of this session is to understand and analyse the kind of informal and formal educational activities that take place under the umbrella of the Maker Movement and then relate this to the field of Technology education to uncover what researchers, innovators and teachers in this field can learn from the principles, ideas and practices that are central to the Maker Movement and vice versa. The session is moderated by Remke Klapwijk, Delft University of Technology, and co-editor of book ‘Maker Education Meets Technology education; Reflections on Good Practices’.

Numbers: max. 35

Notes

Notes

PATT40

Organized in conjunction with

d&t.teg

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