

Future Data Services

Output checking retreat: report

Overview and Insights

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1. Overview and aim

Output checking is one of the Five Safes of data governance. All TREs do it; it can be costly and resource-intensive. The Data Research Access and Governance Network (DRAGoN) at UWE Bristol organised a 3-day retreat for TREs to learn about best practice and recent developments, review their organisational capability with professional and peer input, devise development plans, and contribute to a 'best practice' guideline for TREs. The retreat was facilitated by experts in data governance, statistics, organisational psychology and operations management.

Specific aims of the retreat included:

- To review current developments in theory and training for TRE staff and researchers
- To explore the new semi-automated output checking tool, SACRO
- To introduce the 'operational potential' model for process evaluation
- To review (and challenge) the operational decisions that underlie each TRE's processes
- To generate development plans for each TREs covering operations, training, guidance and resource needs
- To generate guidelines on good practice to be disseminated to TREs

The workshop was intended as a proof-of-concept to see how well the intensive workshop format could be used to address operational issues, build collaborations and generate new insights.

2. Delegates

A total of 21 delegates attended the retreat. These were individuals who held significant responsibility for input into their organisations output checking processes. The delegates included both frontline staff and senior/ strategic management. Delegates came from the following organisations:

Celsius	HSCNI	SLS
CPRD	IDS	UKDS
DaSH	NW SDE	UWE
DataLoch	ONS	WoS TRE
eDRIS	OpenSAFELY	
HIC	SAIL	

Delegates were not representing their organisations, and views were expressed in their personal capacity as subject experts.

3. Activities

The workshop was planned to last from Tuesday lunchtime – Thursday lunchtime and include two evening meals, to encourage discussion between participants in a relaxed atmosphere. The workshop was facilitated and directed overall by Elizabeth Green (EG) and Felix Ritchie (FR), with additional support on day 2 from Kyle Alves (KA, specialist in operations management) and Damian Whittard (DW, representing the user perspective).

The detailed timetable envisaged a mix of talks, table activities, and poster/group activities:

Day 1		
12.00	Arrival and lunch	
Session 1: Developments in theory and resources (Felix and Lizzie)		
1.00 FR & EG	Introduction: aims of the retreat	<p>Activity:</p> <ul style="list-style-type: none"> State name, organisation, how long your organisations has been doing output checking and (if already in op) one thing to change that would make your life easier <p>Outcomes for specific data services</p> <ol style="list-style-type: none"> Awareness of new developments in SDC theory, guidance and tools Awareness of how different organisations approach output checking Defensible position statement and development plan <p>Outcomes for all</p> <ol style="list-style-type: none"> Identification of gaps in resources/tools/knowledge List of questions to ask when planning output checking processes Effective (shared) metrics and how to use them Development plan to take these forward <p>Approach</p> <ul style="list-style-type: none"> this is an organisational issue (training, ops, customer management/co-production), not about learning SDC
1.30 FR	Theoretical development: new models of SDC, guidance, training	<p>Current state of play:</p> <ul style="list-style-type: none"> New models of SDC – from Liverpool, briefly Gaps eg graphs RRSA things from the SACRO manual about accepted good practice eg training etc explain what training is currently out there (us and others) <p>Cover quite quickly and then ask questions</p> <ul style="list-style-type: none"> are our assumption about best practice valid? <p>Aim is to address gaps in more detail through the week</p> <p>Introduce our super-document</p>
1.45 FR & EG	How does output checking work?	<p>Presentation (FR): Flow diagram, highlighting all the points where decisions are made, and relevant questions for each section</p> <p>Activity 1: discuss on the table</p> <ul style="list-style-type: none"> have we missed anything in the process? what assumptions, choices and external constraints are there <p>[Activity for the UWE team: challenge all the assumptions – aren't they really choices?]</p> <p>Summary activity:</p> <ul style="list-style-type: none"> bring it all together – build lists of choices, assumptions, constraints in uber-doc
3.00	Break	
3.15 FR & EG	Preparation for day 2 – what is output checking for?	<p>Activity 2: explain to your table</p> <ul style="list-style-type: none"> what it is you currently do why – what is the goal in one word?

		<ul style="list-style-type: none"> • if it differs from others, ask to explain why • highlight areas of common practice, areas of differences on flipchart <p>Summary activity: go round tables and ask for common ideas/differences</p> <p>Aim of tomorrow is to explore:</p> <ul style="list-style-type: none"> • What do we currently do? • Why do we do it? • Do we want to keep doing it? • If not what do we need to change • Are we doing whatever we do as efficiently as possible?
4.15 EG	SACRO: semi-automatic output checking: operation, training for staff and researchers; organisational needs; public engagement	<p>Presentation (EG):</p> <ul style="list-style-type: none"> • Theory (from Liverpool day 2) • Presentation on how it works • Experience of implementation to date • Expectations: who it replaces, how it changes presentation of governance, PPI and stakeholder engagement • Implications: how would your processes need to change?
4.45	Finish	<p>UWE team review activities for next day</p> <p>Review of the statbarns for those who want it</p>
6.30	Dinner	
Day 2		
Session 2: Understanding organisational processes		
9.15	Meet the user/reviewer	DW and KA introduce themselves and their role
9.30 FR & EG	Risks	<p>Aim: identify the goal of output checking in your organisation</p> <p>Question: What are the risks you are considering?</p> <p>Activity 3: why do output checking?</p> <ul style="list-style-type: none"> • Assume no checks at all. What do you want to add in, and why? Justify choices <p>Summary: tell us what the aim is of output checking in your organisation</p>
10.30 FR & EG	External constraints overall: why are we doing this?	<p>Who are the external agents acting on you? Could include public, IRBs as well as data owners; what are their expectations, and who forms those expectations?</p> <p>Activity 4:</p> <ul style="list-style-type: none"> • identify all of the external agents. Which constrain you, and which are partners? <p>Summary:</p>
11.15	Resources	
FR, EG, KA	<p>Generally: address all questions by what would you like what can you get by with where do you start to trade off performance and quality what do you need Can you change your operations to get this?</p>	<p>Activity 5: for each of these identify ideal, acceptable, minimal, where you are now, and how you plan to move up the scale</p> <p>What would the ideal researcher look like?</p> <ul style="list-style-type: none"> • Only runners, perfectly labelled and described, rarely <p>What would the ideal output checker look like?</p> <ul style="list-style-type: none"> • loves checking outs and researchers, fully expert in theory, great negotiator... <p>What would the ideal output checking team look like?</p> <ul style="list-style-type: none"> • Enough bodies so every checker, does 1 output per day

		<p>What would the ideal resource set look like?</p> <ul style="list-style-type: none"> • Full CRM, complete web-readable docs inside and outside TRE <p>Each table takes one, move on to other if they think they have time</p>
12.30	Lunch	
Session 3: Review of processes (working groups)		
1.30 KA	Understanding and creating useful metrics	<p>Presentation (KA): how organisations develop useful benchmarks; measurements for efficiency</p> <p>Activity 6:</p> <ul style="list-style-type: none"> • how can we usefully derive metrics?
2.30	break	
2.45 KA	Bringing about organisational change	<p>What change in your organisation would you like to see? (everyone choose one thing)</p> <p>What change do you think is feasible? <= challenge – limitations, what is preventing you from getting there? Is it just about timing?</p> <p>What would help to bring about the change? (external and internal)</p> <p>Activity 7</p> <ul style="list-style-type: none"> • Identify drivers/restrainers, both internal and external
4.00 TREs	Presentation of review by HSCNI (unable to attend Day 3)	<p>Format for future presentations:</p> <ul style="list-style-type: none"> • What works well? • What assumptions are made • What needs to be changed? • How will that happen?
4.30	Close	
6.30	Dinner	
Day 3		
Session 4: development and next steps (all)		
9.00 TREs	Presentation of reviews by TREs	<p>Activity: services present identification of needs development plans to peers</p> <p>What you want to change if you can. How and when this will happen and what you need to make it happen</p> <p>Resources needed</p>
10.30	Break	
11.00	Development of good practice guidelines for TREs	Go through doc so far
12.00	Review	<p>Activity for all:</p> <ul style="list-style-type: none"> • was this a useful exercise? • shall we do it again? • what do we do differently?
12.30	Lunch and close	

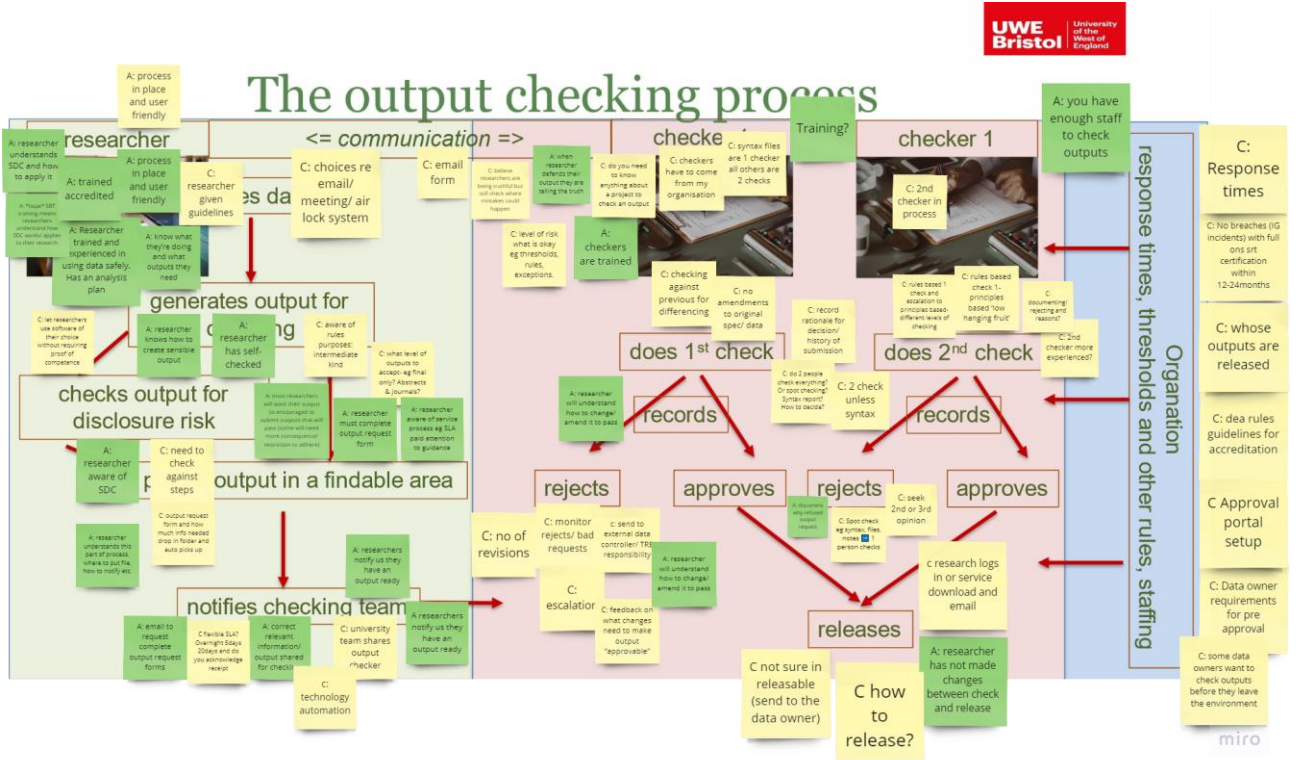
Most of the presentations and activities went as planned, but one of the main ambitions (to get each organisation to review its own practices and then present their findings and plan for development to the rest) proved impractical and over-ambitious.

4. Emergent findings

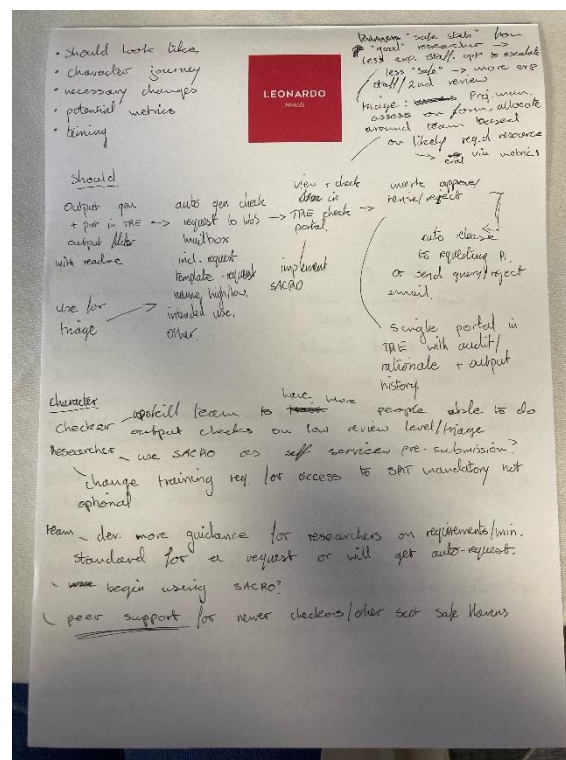
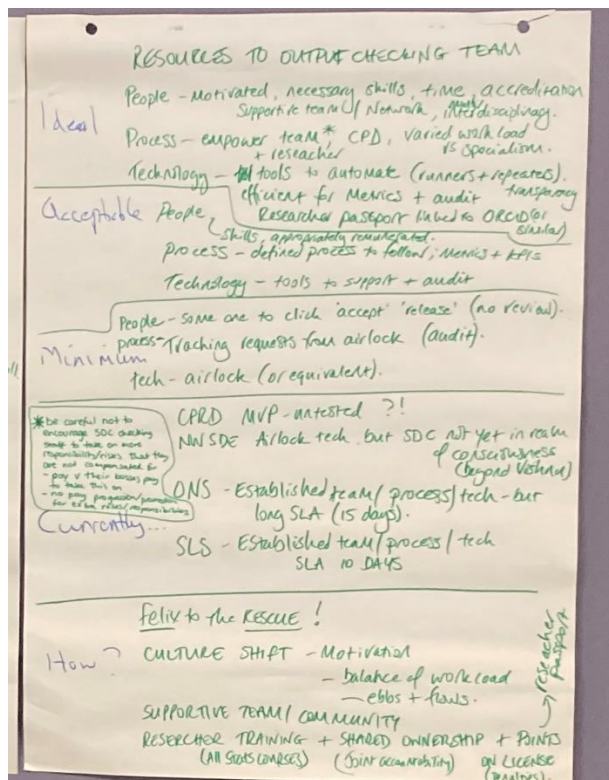
A large amount of materials was generated, on whiteboards, paper and sticky notes. For example:

What are Choices, what are Assumptions made across the output checking process?

Discussion notes added to the original process diagram



What is the minimum output checking needed vs ideal? What should output checking look like? Photos of delegates workings.



Two elements were felt to be particularly useful: the review of recent changes in the theory and technological developments (the SACRO work), and the exercise on identifying what counted as ‘minimum’, ‘adequate’ and ‘ideal’ skills for output checking teams. However, the main finding on the day was the value of being able to engage with individuals doing similar jobs in other organisations. Delegates were keen to repeat the activity, suggesting it could become a regular event, and perhaps cover other parts of data services activities.

These will now be turned into a formal guide, incorporating all the comments and trying to reconcile differing views over what counts as ‘best practice’

5. Delegate feedback

Delegates were asked to complete a post-event survey to provide feedback to the organisers. These show a highly positive response, reflecting comments made during the session.

5.1 How useful was the event?

“It was an event I didn't know I needed!!! I'm in a small team and it was great to meet others doing similar jobs. There's no real community in SDC and this event provided community, support and interaction with others facing similar issues. It made me aware of the control we have as SDC checkers over the process; something I was taught was a process that was done this way like it had always been done. But now I see room for change, development and improvement.”

“As the first of its kind, this workshop was fantastic! Not only did it provide an opportunity for experts from different TREs across the UK to share best practices and support each other in a

rapidly specialized area, but the sense of community it fostered ensures a lasting impact among members.”

5.2 What worked well?

“There are plenty of opportunity to talk to all of the participants, the atmosphere is friendly and supportive.”

“Having academic experts give an overview of their work and how it can be applied to my organisation.”

“Having an in-person event worked great - it's easier to engage with the sessions and meet people (as someone neurodivergent) in an in-person format. I think I got so much from the sessions being broken up by informal breaks and opportunities to honestly chat with other people in similar roles. It allowed time to reflect and un-pack the content of the sessions further.”

“Structure, mixing across orgs, sharing ideas, brainstorming”

5.3 Ideas for future workshops?

“A demo of SACRO in action would be interesting”

“I'd love an in-person training on ACRO/SACRO: some sessions on practical uses (the practical how to with workshop/lab to run through doing it) plus some sessions on the procedural/theoretical side (adapting your SDC procedures, and how much trust to place in it, gaps in it's checking).”

“Sdc challenges (strangers and aliens)”

5.4 NPS Score

NPS stands for Net Promoter Score, a metric used in customer experience programmes. Bain & Company, suggest the following scores: Above 0 is ‘good’, above 20 is ‘favourable’, above 50 is ‘excellent’, and above 80 is ‘world class’. This event obtained a score of 75/100.

6. Lessons learned and overall conclusions

Generally this was felt, by both organisers and attendees, to be a successful exercise and generated real value for all parties. The workshop did evolve organically, particularly in terms of what was going to be the outcome of the event. However, a lack of clarity over the ultimate goal may have helped the workshop to develop its inner tempo and given the attendees more of a feeling of ownership than if the organisers had tried to steer the event to a pre-determined output.

Key positive lessons learned from this are

- The overnight stays were important for providing group bonding and allowing more freedom to discuss topics, as well as making sure that days were now limited by people attending or leaving
- The activities was important to prevent this just being CPD

- The presentations were important to help frame and move the conversation along, and to introduce new ideas
- Going ‘wide’ (few people from many organisations) was much better than going deep (having few organisations involved but each sending multiple delegates), as it allowed attendees to compare their experience with other organisations
- Having differing levels of expertise (some very expert, others just setting up output checking for the first time) was a particular bonus for the less experienced, as it allowed them to build links and see that multiple solutions existed

Areas of learning for future events are

- Less ambition: trying to develop reviews on the day was too much
- More unstructured time would have helped discussions

7. Update November 2024: post-workshop activities

The DRAGoN team (Green, Ritchie, and Alves, with support from Cara Kendal) produced a draft *Setting up output checking processes: A guide for data services* in May 2024. An editable copy was circulated to workshop attendees and to wider networks such as the SDC-REBOOT community to gain feedback, particular on the ‘best practice’ recommendations. A hybrid workshop in Edinburgh and a virtual workshop were run to gain additional verbal feedback. The operating guide received substantial positive feedback. A first (final) draft was published on the UWE website and on <https://zenodo.org/records/14205842> in November 2024. The intention is that this will be periodically updated with ongoing comments.