

SCSC Data Safety Initiative – WG Meeting 32

15th March 2017, Raytheon, Harlow

Minutes and Actions

Attendees

Mike Parsons (MP) – NATS [Chair], Eric Bridgstock (EB) – Raytheon [Host], Ashley Price (AP) – Raytheon [Secretary], Rob Ashmore (RA) – DSTL, Steve Clugston (SC) – TSC, Mark Templeton (MT) – QinetiQ, Des Burke (DeB) – BAE Systems, Dave Banham (DB) – Rolls-Royce PLC

Apologies

Paul Hampton (PH) – CGI, Louise Harney (LH) – PA, Alistair Faulkner (AF) – Abbeymeade, Ali Hessami (AH) – Vega, Fan Ye (FY) – ESC, John Spriggs (JS) – NATS, Bob Oates (RO) – Rolls-Royce PLC, Nick Hales (NH) – DE&S, Janette Baldwin (JB) – Thales, Andrew Eaton (AE) – CAA, Amira Hamilton (AH) – CGI, Chris Hartgroves (CH) – Leonardo, Shaun Cowles (SC) – EDF Energy, Paolo Giuliani (PG) – EDF Energy, Michael Aspaturian (MAS) – EDF Energy, Sam Robinson (SR) – EDF Energy, Victor Malysz (VM) – Rolls-Royce PLC, Clive Kelsall (CK) – BAE, Tim Kelly (TK) – University of York, John Bragg (JB) – MBDA.

Agenda

1. SSS'17 report including:
 - a. How the new Guidance document was received
 - b. Feedback on the 3 data safety papers:
 - i. Louise Harney – Integrating Data into the Safety Assessment Methodology for Defence
 - ii. Harold Thimbleby – Cybersecurity problems in a typical hospital (and probably all of them)
 - iii. Tom Adams, Paul Hampton, Mike Parsons – Data: Your Life in its Hands
2. Sales/Downloads Update
3. Feedback from Network Rail
4. Major Actions
5. Future publishing routes update
6. Move to LaTeX update
7. Formal modelling activity update
8. Dissemination update
9. Standards update
10. Review of 2017/8 plans, including changes, new topics and improvements
11. Future events – IET
12. Minutes and actions status
13. AOB, etc.
14. Data Safety in the News
15. Further work: Falsification of Data, Testing Data

NOTE: All comments or opinions in these notes are attributed only to individual attendees of the meeting, not to their respective organisations.

*[Note that actions are presented in the form **N.Mx** where **N** is the meeting number, **M** a reference number for the action raised in that meeting and **x** is an optional letter that differentiates related actions arising from the same discussion point].*

MP kicked off the meeting with emphasis on the publication of Version 2.0 of the Data Safety Guidance document, indicating that it has been well received but the feedback required consolidation and review. MP indicated that we should be setting out the objectives for the rest of the year with deliverables for SSS'18 being the major milestone. MP also gave a run-down of the agenda highlighting agenda items of particular interest/focus being:

- Feedback from Network Rail (Item 3)
- Major Actions (Item 4)

The meeting slides are available [5].

1. SSS'17 Report

The 25th Safety-critical Systems Symposium (SSS) was held over 3 days in Bristol between 7th -9th February 2017, at which Version 2.0 of the Data Safety Guidance document was distributed (with 2 other publications: Proceedings and '25 at 25'). These publications (and the data safety papers that were presented at SSS) were all very well received, with feedback for the books being very positive (~4.6/5).

2. Sales/Downloads Update

Version 2.0 of the Data Safety Guidance book was made available to buy on Amazon via CreateSpace from Jan, with good sales to date (203 copies). The old version was still selling - which the group raised possible concern with: MP identified that there are issues uploading PDFs of the same title to CreateSpace, and that a suitable name for new versions of the book should be identified. Recommendations were made for the inclusion of the issue number or a subtitle of the document. There were also concerns whether links existed between the two versions of the document and whether the old version should be removed.

Action 32.1 [MP] Identify whether CreateSpace/Amazon has a link between the two versions of the book, and whether the old version should be withdrawn. Additionally, identify a unique name for the next version.

Version 2.0 of the Data Safety Guidance document was also made available to download via the SCSC website (Ref. [1]) for free from SSS'17. Downloads are 328 to date [21/03/17], which is very promising given the short period of time it has been available (note downloads were not counted for the first two weeks so the true number is likely to be higher.).

3. Feedback from Network Rail

Davin Cowley-Sweet, from Network Rail (NR), was sent an unsolicited hardcopy of the Data Safety Guidance document and supplied some very positive feedback. Davin was keen to engage with the DSIWG and explained his role within NR and how he champions data management within his organisation's management system. Davin stated that NR are "treating data as an asset in its own right", in doing so their asset management policies dictate the triggering of many management activities. Davin identified he'd just completed a 2 year piece of work "designing, building and implementing a quality management system for data" which has gone through NR's validation/evaluation processes and an independent assessment. He also detailed that they'd learnt a lot from the activities they'd undertaken and that the Data Safety Guidance document "will most certainly be informing my next steps".

Action 32.2 [MP] Arrange a meeting to discuss NR's approach further and look to involve them (e.g. Davin Cowley-Sweet) in the DSIWG

It was noted that Davin's implementation of data management within NR could aid in solving problems that had previously been identified amongst the DSIWG (Alistair Faulkner) regarding the use of data, e.g. closure of railway line is easily done but not easily undone (similar to the grounding of aircraft).

4. Major Actions

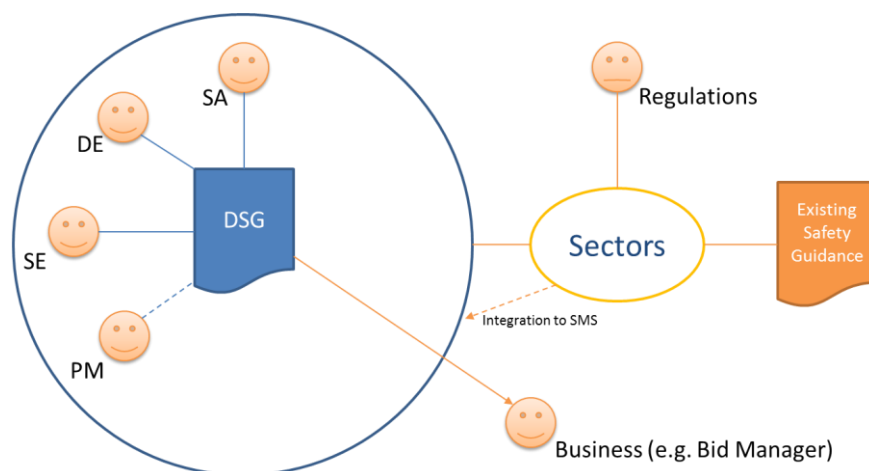
The following actions were discussed:

- Action 31.7 (RA) – Look at how the guidance could be structured into normative and informative guidance
 - RA Identified the typical development path of a Guidance document being:
 - Compilation of Initial 'Good thoughts'
 - 'Good thoughts' bounded by regulations
 - Legislative standard development
 - RA presented a new structure of the document, in which the balance of normative and informative text of the current Guidance document had been understood in order to propose a perceived better balance and flow of the two textual types.
 - Additionally, RA identified a third textual type (discursive) that was included in the new structure.
 - Discussion was then had around the Guidance documents structure with regards to the objectives it (and the group) set out to achieve, and its usage. Raising the following questions:
 - Should the Guidance document allow domains to pick it up and rework in order to create domain specific requirements/standards?
 - Should the Guidance document be more objective (normative) to form the basis of standards (SHALL/SHOULD terminology)?
 - Should the Guidance document supply validation to some extent e.g. Motor Industry Software Reliability Association (MISRA) C guidelines contain requirements largely for compliance
 - The MISRA framework was discussed in the context that it identifies normative/informative sections and outlines minimum aspects to consider/comply with; and that this was possibly what was being attempted to be achieved although this was the subject of some debate.
 - RA recommended that parts of the guidance that could be put forward to regulatory bodies needed to be pro-actively identified. MT agreed, highlighting that categorisation of bodies of text would enable more control over the key aspects (normative) under our current collaborative method of working. This element of the discussion highlighted that the Guidance

document was lacking a section that showed ‘how the principles set out in the Guidance can be satisfied’. It was also identified that the Guidance lacked definitions and abbreviations with regards to normative text (SHOULD/SHALL etc.)

Action 32.3 [RA] Look into generating a section within the Guidance document that identifies how the principles set out can be satisfied

- DB identified that the potential change of the structure of the currently well received document could hinder its progress in addressing the ‘real’ issues, being its use in real world applications (clarity of data safety concerns).
- SC identified that, throughout the Guidance document, the data management ‘sales pitch’ was repeated, when it should be presented once only, during the introduction.
- MP cited ‘Clinical Risk Management: its Application in the Manufacture of Health IT Systems’ (SCCI0129 – Ref. **Error! Reference source not found.**) at this point as a good example of a succinct document framework, in which the objective was to apply a systematic risk management approach. This document was comparatively small (approx. 20 pages) as it referenced separate supporting guidance material.
- RA said he’d like the group to digest the new structure proposed and supply feedback as to whether it was a good route forward or a non-starter.
- MP reiterated that the focus should be on the objectives that we are trying to achieve and details of the means of achieving them. It was identified that the users tend to head straight to the tables contained in the Appendices and the group were unsure whether this was considered best usage.
- MT noted, citing Def Stan 00-056 as an example, that slimming down of the Guidance document could be detrimental. MT outlined that the focus should be:
 - Identifying which aspects are most important to us and which should be identified upon review
 - Avoiding dictation of the approaches to take to comply with the principles (but not avoid making recommendations)
- DB moved towards classification of the intended audience as a means to focus the documents meaningfulness for appropriate readers e.g. Systems Engineers (SE), Design Engineers (DE), Safety Assurance (SA), Project Managers (PM). The Bid Manager was identified by MT as being a key stakeholder in the document, from the viewpoint of ‘what do we have to do and what is the cost of doing it?’. The following was captured on the whiteboard:



- DB proposed that the structure should allow each of the entities to identify the aspects relevant to them.

- DeB suggested that the ideal is that the guidance gets integrated in to a company's management system without any considerable overhead and that it was not an add-on.
- Based on the discussions MP is to review the structure that has been presented and gain a consensus on the way forward:
 - Adopt new proposed structure?
 - Do nothing?
 - Do something else?

Action 32.4 [MP] Review the proposed structure and gain a consensus on the way forward.

- Action 31.4 (MP) – Make a first draft of the Business Benefit Guide
 - MP presented a first draft flyer [7], reviewed by RA and Bob Oates with good feedback received.
 - To be distributed for review to gather more feedback.
- Action 31.20 (MP) – Consider how best to resolve the issue of ALARP in the context of data
 - MP presented a first draft document providing a general introduction to the ALARP principle and how it could be utilised in the context of data [6], reviewed by RA.
 - This is to be distributed for review to gather further feedback.
 - EB considered that the ALARP principle was applicable only at the end system level (by end user) and therefore not at the level being considered in the context of data (sub-system level). This was due to the often dramatic difference in environments between the two levels, and the need to consider operational issues when assessing ALARP.
 - DeB made a proposal of working to the principles of ALARP but not making any claims of ALARP due to the legalities involved. To avoid the legalities it was agreed that a more appropriate method could be to work toward SFAIRP (So Far As Is Reasonably Practicable).
 - MT generally agreed and added that we should definitely not dictate the implementation of the ALARP principles, but maybe recommend them as an approach.
 - MP made a case for inclusion of the ALARP principles as a link into the UK legal framework, offering a level of compliance. He also identified that it would be useful to understand Network Rail's use of the ALARP principles in the context of data.

Derek Fowler has provided feedback on the guidance document [16]. Of particular note Derek has identified positive aspects of data in systems that had seemingly been overlooked.

This discussion triggered the need to appropriately collate the feedback from reviews conducted on the Guidance document. However, it was agreed that feedback will not be addressed until a structure has been agreed.

Action 32.5 [RA] Collate the feedback from reviews conducted against the latest version of the Data Safety Guidance document

- Action 31.9 (RA) – Look at minutes and produce a candidate list for activities for the next version of the document
 - RA presented a document that collated a list of activities/items for considerations, some of which are covered in other agenda items and/or current actions e.g. Formal modelling (DB currently undertaking – agenda item **7** and action **28.5**). Volunteers were requested to undertake items on the list; where items are not current agenda items and/or actions, new actions have been created and assigned as follows:
 - *Revised legal disclaimer – RA and SC looked at how the UK Data Protection Act interacted with Data Safety Guidance.*

- *Goal Structuring Notation (GSN) based assurance argument* – RO to follow on from progress of **action 31.10**
- *Formal Modelling* – DB to follow on from progress of **action 28.5** (agenda item 7)
- *Issues associated with data sampling* – SC presented an update of **action 31.19**:
 - SC highlighted the need for consensus on whether data sampling issues, were hypothetical or real-world issues requesting identification of appropriate examples. SC also identified the need for definition of top level terms i.e. 'Data', 'Information' and 'Knowledge'
- *Building and maintaining a more formal database of historical incidents and accidents* – DeB agreed to initiate. AP suggested Air New Zealand Flight 901 as a good example; identified from the listing (Computer-related disasters and egregious horrors) in the paper 'Confidence in a connected world: safe, secure, resilient and autonomous' (Robin E Bloomfield, Kate Netkachova, Peter Bishop) presented at SSS'17.

Action 32.6 [DeB] Generate a database of historical incidents and accidents where data is considered to have been a contributory factor.

At this point MP presented guidance material for the 'Clinical Risk Management: its Application in the Deployment and Use of Health IT Systems' for the NHS (SCCI0160 – Ref. **Error! Reference source not found.**), generated by Paul Hampton using the Data Safety Guidance document. MP said the document was well received and was to be released shortly and would form a good example for the updated Data Safety Guidance document.

5. Future publishing routes update

Additional publishing routes were identified and explored for consideration in the future, namely:

1. BSI – identified the possibility of internal funding, however, possible issues of ownership regarding future updates
2. IEC – understood that the process with regards to future updates is very involved
3. Continue with self-publication to avoid conflicts of ownership

It was concluded that (3) was the best route to follow for now.

6. Move to LaTeX update

No progress reported. MT to progress **action 31.17** including understanding of what is achievable via the platforms at the University of York.

7. Formal modelling activity update

DB identified the modelling activity as a work in progress, where a large model is necessary to replicate the full system with data being a low level constituent of the system anthology. Assumptions are therefore required to be made in order to simplify the representation. It was identified that a review had been conducted against a first draft of the Object Management Group (OMG) (www.omg.org) document¹.

¹ The threat-risk model work can be accessed from the working group's website at <http://threatrisk.org/>. Follow the link to a Github site to get the spec. Note that work was done against the original submission and not the current revised submission. Look for the old submission on their github site if interested.

8. Dissemination update

MP identified that Paul Hampton's use of the Data Safety Guidance document in generating guidance material for 'Clinical Risk Management' for the NHS (SCCI0160 – Ref. **Error! Reference source not found.**) was a solid step in achieving Guidance dissemination. The distribution amongst those that attended SSS'17 is also an obvious milestone in its delivery. Working group members were pro-actively distributing the document within their networks, notably including the MAA. The group proposed to MP that the revenue generated by publication sales be used to purchase and distribute further free copies.

Action 32.7 [MP] Discuss with the SCSC the potential of purchasing and distributing more free copies of the Guidance document, using the revenue generated from sales.

EB volunteered to check if Raytheon would fund publication of the next edition of Data Safety Guidance for distribution at SSS'18.

Action 32.8 [EB] Investigate if Raytheon could fund the hard copy publication of the next version of the Guidance document at SSS'18. [Approximately £10.50 * 130 copies].

It was agreed to compile a list of candidate recipients that these copies could be distributed to, identifying the European Data Institute and TfL/TfGM (Transport for London/Greater Manchester) as potential priorities.

Action 32.9 [SC] Produce a candidate list of Guidance users and prioritise distribution of potential free material.

9. Standards update

EB advised that Def Stan 00-056 had been recently updated to issue 7, highlighting that the document has been split out to two parts once more, with both routinely mentioning data as an element of a system:

1. Requirements/Policy
2. Guidance on Establishing a Means of Complying with Part 1

(Post meeting correction) EB added that Def Stan 00-055 remains at issue 4 with inclusion of a data safety annex.

It was also identified that Def Stan 00-056 references out to Def Stan 00-055 which in turn references out to the DSIWG Guidance.

10. Review of 2017/8 plans, including changes, new topics and improvements

No progress reported, other than what had previously been discussed.

11. Future events – IET

MP is in discussion with the IET to hold a data safety-related event. The SCSC have two seminars coming up, and the second may have a data element (see [Events Diary](#) for full listing):

- April 6th, London UK – New Thinking in Human Factors for Safety
- June 8th, London UK – Risk, Proportionality and ALARP: How do we do enough for safety?

12. Minutes and actions status

The status of the previous actions were agreed, as follows:

Action 26.4	No update, decision taken to close the action. Action Closed.
Action 28.5	Not yet finalised.
Action 29.2	No update.
Action 29.9	No update.
Action 30.11	Action Complete/Closed.
Action 30.12	No update.
Action 30.13	Action Complete/Closed.
Action 30.14	Action Complete/Closed.
Action 30.16	Louise awaiting logo (Post meeting update: Logo supplied). Action ongoing.
Action 31.1	Action Complete/Closed.
Action 31.2	Action Complete/Closed.
Action 31.3	Action Complete/Closed.
Action 31.4	Action Complete/Closed.
Action 31.5	Action Complete/Closed.
Action 31.6	Action Complete/Closed.
Action 31.7	Action Complete/Closed.
Action 31.8	No update.
Action 31.9	Action Complete/Closed.
Action 31.10	No update, decision taken to reassign action to Rob Oates.
Action 31.11	John McDermid contacted but no response received to date.
Action 31.12	Roger Rivett contacted but no response received to date.

- Action 31.13 No update.
- Action 31.14 No update.
- Action 31.15 No update.
- Action 31.16 Graham Jolliffe contacted but no response received to date.
- Action 31.17 No update.
- Action 31.18 To be raised at next SCSC meeting.
- Action 31.19 No update.
- Action 31.20 **Action Complete/Closed (see minutes on agenda item 4).**
- Action 31.21 No update.

13. AOB, etc.

The group discussed the potential of getting people from overseas involved. The discussion around this identified the following:

- Attending a meeting is not ideal given the difficulty of travel, time zones and breadth of information already amongst the group. This could be combatted by a more focused agenda tending to specific needs and sitting in on the meeting (video/tele conference) for specific time slots.
- Using group members' international contacts and networks to distribute Guidance document copies (hard copy or free PDF link) would be a good 'hook' to gather more members.
- The mailing list was considered a good way of keeping members informed and involved.
- It may be possible for international members to join the group and then form their own local groups, possibly operating independently from the UK based group but with liaison.

DB raised the issue of the list of "significant contributors" in the Guidance document possibly being too long.

Action 32.10 [DB] Define categories of contributors for consideration at next meeting.

14. Data Safety in the News

An instance of the early release of a considerable number of inmates (~3,000) from a prison in Washington State [17] was identified where data was considered to have been a contributory factor. The system calculated the sentences that were then updated with periodic 'good time' bonuses which were incorrectly applied. The sentences were not being validated by state correction officials, and as a consequence all sentences are being validated against hand calculations.

(Post meeting note: there is a very relevant article on the BBC website regarding the impact of tampering with data [4].)

15. Further work: Falsification of Data, Testing Data

No progress reported.

16. Next Meeting

DSIWG #33, MBDA, Bristol, 25th April 2017.

17. Thanks

Thanks to AP for taking the minutes and actions, and EB for hosting the meeting.

18. Summary of Open Actions

Ref	Owner	Description	Target Guidance Version
28.5	DB	Publish an agreed version of the data model whitepaper.	2.1
29.2	NH	Publicise the data safety guidance via social media such as Facebook.	N/A
29.9	PG	Look into adding a worked example in the civil nuclear sector	2.1
30.12	MAs	Consider how the group could be involved in applying for funding in the future.	N/A
30.16	LH	Create a data safety page on LinkedIn and invite DSIWG members when it is set up.	N/A
31.8	MT	Look at applying the guidance to the autonomous aircraft airworthiness example previously used to assess the dataware framework report.	2.1
31.10	JEB	Look at how GSN can be added to the guidance to support the data aspects of a safety argument.	2.1
31.11	MP	Talk to John McDermid to see if he can help write to various regulators to make them aware of the guidance and ask them to review/comment.	N/A
31.12	MP	Talk to Roger Rivett or Ged Lancaster about how to disseminate the guidance into the automotive sector.	N/A
31.13	MP	Talk to Tim Kelly / Mark Nicholson about introducing data safety into an academic module [E.g. on the York MSc. This could involve a member of the DSIWG].	N/A
31.14	All	After SSS'17, make contact with at least one international colleague or contact and let them know about the new publication and invite them to participate in the group.	N/A
31.15	AH	Raise with IEEE standards about seeking more international participation with the group.	N/A
31.16	MP	Talk to Graham Jolliffe about organising an IET event (seminar/tutorial).	N/A
31.17	MT	To set up a subgroup including JEB, MT and RA to decide on how best to manage the implementation of the move to LaTeX. [Including hosting and collaborative environment issues.]	2.1
31.18	MP	Ensure legal and liability of the group's work is given due consideration in future meetings (disclaimers etc.), including production of WG terms of reference.	N/A
31.19	SC	Write some text about sampling rate issues and consider where in the guidance this could be included.	2.1
31.21	MP	Write some text on Falsification and submit this for review within the group.	2.1
32.1	MP	Identify whether Amazon has a link between the two versions of the document, and whether the old version should be withdrawn. Additionally, identify a unique document name for the next version.	2.1
32.2	MP	Arrange a follow on meeting to discuss NR's approach further and look to involve them (Davin Cowley-Sweet) in the DSIWG	N/A
32.3	RA	Look into generating a section within the Guidance document that identifies how the principles set out can be satisfied	2.1

Ref	Owner	Description	Target Guidance Version
32.4	MP	Review the proposed structure and gain a consensus on the way forward	2.1
32.5	RA	Collate the feedback from reviews conducted against the latest version of the Data Safety Guidance document	2.1
32.6	DeB	Generate a database of historical incidents and accidents where data is considered to have been a contributory factor.	2.1
32.7	MP	Discuss with the SCSC the potential of purchasing and distributing more free copies of the Guidance document, using the revenue generated from sales.	2.0
32.8	EB	Discuss the potential of Raytheon supplying funds for the publication of the next version of the Guidance document.	2.0
32.9	SC	Produce a candidate list of Guidance users and prioritise distribution of potential free material.	2.0
32.10	DB	Define categories of contributors and list contributors as appropriate.	2.1

References

- [1] Latest PDF of the Guidance Document [http://scsc.org.uk/file/gd/SCSC-127B%20Data%20Safety%20Guidance%20-%20Version%202_0%20\(Corrected%20Appendices\)-230.pdf](http://scsc.org.uk/file/gd/SCSC-127B%20Data%20Safety%20Guidance%20-%20Version%202_0%20(Corrected%20Appendices)-230.pdf)
- [2] SCCI0129 - Clinical Risk Management: its Application in the Manufacture of Health IT Systems <http://content.digital.nhs.uk/media/20984/0129392012spec/pdf/0129392012spec.pdf>
- [3] SCCI0160 - Clinical Risk Management: its Application in the Deployment and Use of Health IT Systems <http://content.digital.nhs.uk/media/20988/0160382012spec/pdf/0160382012spec.pdf>
- [4] BBC news article on tampering with data: "How fake data could lead to failed crops and other woes" <http://www.bbc.co.uk/news/business-38254362>
- [5] Meeting slides <http://scsc.org.uk/file/gd/32nd%20DSIWG%20MP%20Slides-255.pptx>
- [6] ALARP and Data Safety Note <http://scsc.org.uk/file/gd/ALARP%20and%20Data%20Safety%20v0.2%20Robs%20Comments-258.docx>
- [7] Why Data Safety – A Business Guide http://scsc.org.uk/file/gd/Why%20Data%20Safety%20-%20A%20Business%20Guide%20v0.3_RFO%20&%20ORA%20Comments-257.docx
- [8] Possible new content for new version of Data Safety Guidance document <http://scsc.org.uk/file/gd/20170301-PossibleNewContent-248.docx>
- [9] Example of new text for Data Safety Guidance document <http://scsc.org.uk/file/gd/20170301-PossibleNewText-247.docx>

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|------|--|---|
| [10] | Possible new structure for Guidance document | http://scsc.org.uk/file/gd/20170301-PossibleNewStructure-245.docx |
| [11] | Outline discussion of how Data Safety Guidance relates to the UK Data Protection Act | http://scsc.org.uk/file/gd/20170123-DSG And DPA DRAFT-244.docx |
| [12] | Clinical Risk Management – Data Safety | http://scsc.org.uk/file/gd/Clinical%20Risk%20Management%20-%20Data%20Safety%20v4%20DRAFT-256.pdf |
| [13] | Cybersecurity problems in a typical hospital (and probably in all of them) | http://scsc.org.uk/pubs/135/protect_memsell_21%20Thimbleby%20-%20Cybersecurity%20problems%20in%20a%20typical%20hospital.pdf?pap=1040 |
| [14] | Integrating Data into the Safety Assessment Methodology for Defence | http://scsc.org.uk/pubs/135/protect_memsell_20%20Harney%20-%20Integrating%20Data%20Safety%20into%20the%20Safety%20Assessment%20Methodology%20for%20Defence.pdf?pap=1039 |
| [15] | Data: Your Life in its Hands | http://scsc.org.uk/pubs/135/protect_memsell_22%20Adams%20Hampton%20and%20Parsons%20-%20Data%20-%20Your%20Life%20in%20its%20Hands.pdf?pap=1041 |
| [16] | Derek Fowler comments and WG responses | http://scsc.org.uk/file/gd/DF%20Comments%20-%20FW%20%20New%20version%20of%20Data%20Safety%20Guidance%20document%20available!-260.msg [Note: this is the first message, there are a series of 6 messages up to suffix -265] |
| [17] | Prison Official in Washington State Resigns Over Early-Release Error | https://www.nytimes.com/2016/02/07/us/prison-official-in-washington-state-resigns-over-early-release-error.html |