

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND & WALES
INTELLECTUAL PROPERTY LIST (ChD)

Claim No: IL-2021-000019

B E T W E E N :

CRYPTO OPEN PATENT ALLIANCE

Claimant

-and-

DR CRAIG STEVEN WRIGHT

Defendant

**SCHEDULE OF DR WRIGHT'S
FURTHER FORGED DOCUMENTS**

Table of Contents

Introduction	1
The L ^A T _E X files: Main.tex and E-Cash-main.tex	4
The file "BDOPC.raw"	10
ID_004648 and ID_004687	14
ID_004682	17
ID_004695	19
ID_004697	22
ID_004712 and ID_004713	24
ID_004715, ID_004716, ID_004719	26
ID_004722 and ID_004723	29
ID_004729	31
ID_004732 and ID_004734	33
ID_004733	35
ID_004736	37

Introduction

1. This Schedule is served in accordance with paragraph 131 of the PTR judgment dated 20 December 2023 and gives particulars of the 20 documents from the Additional Documents (as defined in the PTR order dated 20 December 2023) which COPA alleges to be forgeries. This Schedule should be treated as annexed to the Re-Re-Re-Amended Particulars of Claim.

2. The documents listed in this Schedule have been altered and/or tampered with as set out below. It is to be inferred (a) that Dr Wright is responsible for the alteration of or tampering with these documents, whether by carrying them out himself or by having others do so at his direction or with his knowledge; or at least (b) that he is aware of the alteration or tampering. In the circumstances, it is also to be inferred that the purpose of these acts was to create documents that would be deployed to prove that Dr Wright is Satoshi. COPA places reliance on the alteration of and tampering with such documents in support of its case that Dr Wright is not Satoshi.
3. This Schedule (a) identifies by ID number which of the Additional Documents COPA alleges to be forged; (b) specifies the reasons on which COPA relies in support of the allegations of forgery, cross-referenced to the relevant paragraphs of the expert evidence; and (c) specifies the reasons why COPA invites the inference that Dr Wright was responsible for the alteration of or tampering with each document or was aware of the alteration or tampering.
4. The form of this Schedule follows that of COPA's first Schedule of Dr Wright's Forged Documents, as explained in paragraph 3 of the introduction to that Schedule. The same referencing scheme is adopted as set out in paragraph 6 of that introduction.
5. In addition to the specific reasons for the inference of responsibility or knowledge given in respect of each document, COPA relies upon the additional reasons set out in paragraph 4 of COPA's original Schedule of Dr Wright's Forged Documents. Further, COPA relies upon the following considerations:
 - (a) The documents identified in this Schedule have all been nominated by Dr Wright as documents on which he primarily relies for his claim to be Satoshi.
 - (b) These are documents which Dr Wright has personally claimed to have looked for and discovered in the period from September 2023 in circumstances set out in his fifth and sixth witness statements in these proceedings.
 - (c) These are documents to which he has attached particular importance, including advancing arguments at the PTR hearing that they were essential to a fair resolution of the Identity Issue.
 - (d) In each case, these documents were produced by Dr Wright following service of Mr Madden's First Report, in circumstances consistent with these new documents having been created in response to Mr Madden's findings.
 - (e) In all cases but one, these documents have been disclosed in file formats containing little or no internal metadata, such as plaintext LaTeX files, RTF documents (rather than MS Word documents), and a 'raw' disk image. Dr Wright's original disclosure contained no such

document. It is to be inferred that, having had sight of the Madden Report, Dr Wright has chosen now to rely on documents that present a lower surface area for forensic analysis.

(f) In each case, these are documents which Dr Wright claims to have been in his possession since 2007. Further, the majority of the documents come from the BDO Drive (BDOPC.raw). Dr Wright claims that BDOPC.raw was an drive image captured on 31 October 2007 and that it was protected by encryption (see his chain of custody information at Exhibit HLF1, p45ff).

6. As in COPA's original Schedule of Dr Wright's Forged Documents, reference to Dr Wright being "responsible for" forgeries means (as set out in paragraph 35B of the Re-Re-Re-Amended Particulars of Claim) that Dr Wright either carried out the relevant acts of tampering / alteration himself or that they were done at his direction and/or with his knowledge.

References in this document

7. The first two entries in this schedule relate to (a) Dr Wright's LaTeX files from the "TC" folder on his Overleaf account and (b) BDOPC.raw, the drive image relied upon by Dr Wright which is said to record the contents of his 2007 "BDO" Computer. The entry for BDOPC.raw addresses that drive image file as a document in its own right and signs of it being a forgery.
8. The remaining entries in this schedule relate to a number of documents extracted from within BDOPC.raw and disclosed as individual documents. They are all taken from Dr Wright's 97 New Reliance Documents. In respect of those documents, as well as the individual indicia of forgery and tampering displayed by and in relation to each of those documents, COPA relies on the fact that they have been obtained from within BDOPC.raw, a source which is itself manipulated.
9. References to "ID" numbers in this document are references to such documents disclosed by Dr Wright in these proceedings under that number. References to the LaTeX documents and the drive image are given by their filenames, as disclosure ID numbers have not been assigned by Dr Wright's legal team to those documents.
10. References to witness statements and expert reports are given by reference to surname and statement / report number in the conventional way, followed by paragraph numbers. Thus, "[Madden 1 at 2-3]" would refer to paragraphs 2-3 in the first main report of Mr Madden. References to "PM" documents are to Appendices to the reports of Mr Madden and their paragraphs. Thus, [PM1 at 2-3] would refer to paragraphs 2-3 of Appendix PM1. References to joint statements give the names of both experts (so that [Madden / Placks 2 at 2-3] would refer to paragraphs 2-3 of the second joint report of Mr Madden and Dr Placks. References to the electronic bundles for trial are given in braces in the form {Bundle/Tab/Page}.

The L^AT_EX files: Main.tex and E-Cash-main.tex

Dr Wright's main LaTeX file "main.tex", "Candidate L"

1. This file is a LaTeX source file, taken from a folder on Dr Wright's Overleaf account. Dr Wright has stated that, as Satoshi Nakamoto, he wrote the Bitcoin White Paper using LaTeX. He has also stated that this document "uniquely codes for the Bitcoin White Paper", and that when compiled in Overleaf, produce a copy of the Bitcoin White Paper "in the same form as" and "materially identical to" that published by Satoshi Nakamoto. [Wright 6 {E/21/3}; Field 1 at 27 {P3/13/10}]
2. Among all his LaTeX files, Dr Wright has nominated this file in particular as the source file that he relies on to compile to the Bitcoin White Paper itself (Shoosmiths' fourth letter of 4 January 2024 {M/2/802}). This file is Candidate L in Mr Rosendahl's report.

Dr Wright's "electronic cash" LaTeX file "E-Cash-main.tex", "Candidate C"

3. This file is a LaTeX source file which is very similar to *main.tex*. This file is Candidate C in Mr Rosendahl's report. The file presents as very similar to *main.tex*, but it is entitled "Electronic Cash without a trusted third party", the draft title for the Bitcoin White Paper which was communicated by Satoshi Nakamoto to Adam Back and Wei Dai in September 2008. The abstract of this paper also matches the preview abstract in those Satoshi emails.

Reasons for Allegation of Forgery

4. The Bitcoin White Paper was not written in LaTeX. It was written and produced in OpenOffice 2.4. Its metadata record that it was produced by that means. Examination by both parties' experts has led them both to conclude, and agree, that it was produced by that means based on every level of the pdf from the fine details of its typographical presentation, down to the binary digits of the PDF. [Rosendahl 1 at 66-68 {G/7/23}] [Rosendahl 1 at 191 {G/7/58}] [Lynch 1 at 117-120 and 122.c-d {I/5/36}] [Rosendahl / Lynch 1 at 2 {Q/5/1}].
5. The encoding and embedding of fonts within the original Bitcoin White Paper, and their kerning, is fundamentally incompatible with LaTeX, especially LaTeX in 2009. [Rosendahl 1 at 66-68 {G/7/23} and at 156-157 {G/7/49}].
6. Dr Wright's selected LaTeX file does not, when compiled, produce the Bitcoin White Paper (and neither does any other file in the TC folder). It compiles to a PDF which only superficially resembles the Bitcoin White Paper but which is in fact substantially different [Rosendahl 1 at 120 {G/7/43}] [Lynch 1 at 105 {I/5/29}] [Rosendahl / Lynch Joint report at 3 {Q/5/1}]. Further, and for the avoidance of doubt, the differences are not even explained by the belated indications given by Dr Wright's solicitors on 29 December 2023 {M2/763/1} that there were certain reasons why Dr Wright's file would not compile to a replica of the Bitcoin White Paper (contrary to his previous statement on oath).

7. Dr Wright's LaTeX files from the TC folder are not original to 2008 or 2009. Using LaTeX software that is up to date for 2009, none of them compiles properly, instead producing errors and warnings. The files **L** and **C** could not be compiled at all. In order to compile them at all, it is necessary to fix the files or use a much more modern version of LaTeX software [Rosendahl 1 at 106-112 {G/7/38}]. This is because Dr Wright's LaTeX files include software packages and options which could not have been used in 2009 [Rosendahl 1 at 158 {G/7/50}].
8. The images that result from compiling Dr Wright's identified file are different from the images in the original Bitcoin White Paper (as would be the images resulting from compiling any of Dr Wright's LaTeX files), including in the precise location and angle of the lines and arrows. Dr Wright relies on the precise location and angle of lines and arrows being the same [Wright 6 {E/21/3}; Field 1 at 27 {P3/13/10}], but they are not the same and exhibit subtle but important differences [Rosendahl 1 at 98-100 {G/7/35} and 181 {G/7/55}] [Lynch 1 at 105-115 {I/5/29}] [Rosendahl / Lynch 1 at 3 {Q/5/1}]. In one figure, even the label text does not match [Rosendahl 1 para 98 and fig 3.4 {G/7/36}].
9. Dr Wright's LaTeX files are recent creations:
 - 9.1. The files are modern files written in modern LaTeX code. Paragraph 6 above is repeated.
 - 9.2. Dr Wright's Overleaf account, from which they were sourced, was created on 8 August 2023. There is no previous record of the existence of these files [Shoosmiths' first letter of 8 January 2024, at [6] {M2/820/2}].
 - 9.3. When the Overleaf Metadata was produced, it showed that:
 - 9.3.1. Dr Wright had first created main.tex on 19 November 2023 as a blank document. Dr Wright had then edited the document main.tex over a course of at least 211 edits in the period between 19 November 2023 (2023-11-19 at 18:23:52.252 UTC, the date the document was created) and 1 December 2023 (2023-12-01 at 14:01:48.428 UTC, the date that documents were provided to and compiled by Stroz Friedberg). Dr Wright had then engaged in over 150 further edits in the following days up to 12 December 2023 (2023-12-12 at 15:02:45.176UTC).
 - 9.3.2. The file E-Cash-main.tex had been created at 17.09 on 24 November 2023 (2023-11-24 at 17:09:43.829UTC) and had been populated 11 seconds later with over 700 lines of code. The document had then been edited in a series of 7 further edits up to 17.12 (2023-11-24 at 17:12:15.559 UTC).
 - 9.4. The files were not disclosed at the time for initial disclosure, nor extended disclosure. Further, the files were not disclosed at any time in the intervening period up to 17 November 2023, during which Dr Wright provided no fewer than 12 more rounds of disclosure.

- 9.5. Dr Wright has sought to explain away his failure to disclose the files at the time of extended disclosure by blaming his former solicitors, Ontier. Dr Wright states that Ontier advised him that the files were not disclosable and could not be disclosed [Wright 6 {E/21/3}; Field 1 at 27 {P3/13/10}]. However, this account is inherently implausible (presupposing bizarre and negligent advice), and Ontier have confirmed that Dr Wright's account is false in each and every particular. [Shoosmiths' letter of 18 December 2023 at [4]].
- 9.6. Despite the order of the court to do so, Dr Wright has failed to produce any written record of such advice. Given the supposed importance of the material, it is to be inferred that the issue of its disclosure and Dr Wright's ability to rely upon it would have been addressed in writing and that Dr Wright is unable to provide such a written record because such advice was never given.
- 9.7. It is to be inferred that Dr Wright's LaTeX files were not disclosed at that time because they did not yet exist at that time.
10. Contrary to Dr Wright's assertions, it is not difficult to reverse engineer the publicly available Bitcoin White Paper to create a LaTeX source file that compiles to a PDF file similar to Dr Wright's identified file and that is superficially similar to the Bitcoin White Paper. This is agreed by the parties' experts. [Rosendahl / Lynch 1 at 4 {Q/5/2}]
11. There are strong indications that the images in Dr Wright's LaTeX files have been automatically generated, using an online tool called *Aspose PDF to LaTeX*. The result of converting the original Bitcoin White Paper to LaTeX using Aspose is an exact match, with nearly identical low level coding. While being long and verbose and not simple to create by hand in LaTeX, the code can be created by Aspose instantly. [Rosendahl 1 at 197 {G/7/60}].
12. The code which causes Dr Wright's LaTeX files to resemble the original Bitcoin White Paper in their textual output calls on packages and options which did not exist in 2009. These include instructions for: setting the font (with **fontspec**); how references are displayed (with the **hidelinks** option); the font of the letter λ (with **unicode-math**); and the drawing of diagrams (with the package TikZ, coded to load the TikZ library **arrows.meta**). They include the use of Lua code (requiring the package **luacode** with **LuaLaTeX**). [Rosendahl 1 at section 3.7, {G/7/43-50}].
13. As well as the textual content of the output PDF from Dr Wright's LaTeX files, also the location of elements on the pages cannot be reproduced without modern code. The code calls again on software packages and options which did not yet exist in 2009, including to set the geometry of the page and margins (in the case of main.tex, the command **\newgeometry**), the location of images on the page (with the command **\AddToShipoutPictureBG***), the location display of margins. [Rosendahl 1 at section 3.7, {G/7/43-50}].

14. In each case, those packages and options provide the very functionality which causes Dr Wright's LaTeX files to output something resembling the original Bitcoin White Paper. If they were not used, the output PDF from Dr Wright's LaTeX files would not resemble the original Bitcoin White Paper at all. [Rosendahl 1 at 158, {G/7/50}] [Rosendahl / Lynch 1 at 5 {Q/5/2}].
15. In each case, by contrast, each of the observed characteristics of the Bitcoin White Paper were supported natively by OpenOffice in 2008-2009 [Rosendahl 1 at 160, {G/7/50}] [Lynch 1 at 116-120 {I/5/33}].
16. In respect of E-Cash-main.tex (file C), the file cannot be compiled at all on a 2008-2009 version of LaTeX software, even with concerted effort to make the file compatible. [Rosendahl 1 at 106-109 {G/7/38}].
17. Dr Wright has stated that these files should be compiled on Overleaf, a modern system which did not exist in 2008-2009.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

18. The effect of creating these documents is to support Dr Wright's story that the Bitcoin White Paper was created in LaTeX. The story is untrue, and is designed to be supportive of Dr Wright's claim to be Satoshi Nakamoto (suggesting both special knowledge of the production of the paper and possession of material which only Satoshi could supposedly possess), contrary to fact.
19. E-Cash-main.tex (file C) is created by copying from Satoshi Nakamoto's draft abstract (sent by email to Adam Back and Wei Dai in a form available to Dr Wright) in reference to a document that was never published. The effect of creating this document is to support Dr Wright's claim to be Satoshi Nakamoto by suggesting that he is in sole possession of the source of that unpublished document, contrary to fact.
20. Dr Wright has admitted to having created these files and being in sole possession of these files since they were created. Further, Dr Wright has *averred* that he has created and been in sole possession of these files since their creation, claiming that the "mere possession of these files is evidence of authorship of the White Paper" [Wright 6 {E/21/3}; Field 1 at 33, {P3/13/11}], and that they are "unique". It is true only that the files are unique to Dr Wright. His possession and deployment of these files is indicative of a willingness to forge documents to be used as evidence before this Court.
21. On 30 September 2023, Christen Ager-Hanssen tweeted a screenshot indicating that Dr Wright's browsing history showed that he had searched Google leading to the web page "Was anything in Satoshi Nakamoto's original Bitcoin paper compiled in LaTeX?" {L20/195/1} [Sherrell 19 at 65-66 {P1/18/24}]. Dr Wright has stated that the screenshots of his browsing history posted in tweets by Mr Ager-Hanssen were obtained from his (Dr Wright's) laptop computer [Wright 3 at 18-19 {E/3/6}].

22. These documents were then created during the course of the present proceedings using current technology: paragraphs 7, 8, 9 and 14 above are repeated. Dr Wright has created numerous other documents during the course of proceedings, as is a matter of agreement between all four forensic experts (including Dr Wright's own instructed experts).
23. Dr Wright has stated in clear terms that "all graphical images in the White Paper were produced using LaTeX code" [Wright 4 at 6.c.i {E/4/5}]. However, the graphical images in the White Paper were not produced by LaTeX code. Paragraphs 6 to 8 above are repeated.
24. When ordered by this Court to describe the software environment required to compile the document, Dr Wright did not simply state what the software is required. Instead, he provided a statement (Wright 8) that was verbose and vague. It is to be inferred that the purpose of the statement was to obscure relevant technical detail and supply irrelevant, technical-sounding information in its place and/or to provide scope for Dr Wright to give excuses for failures of his LaTeX files to compile into a true replica of the Bitcoin White Paper.
25. The files were taken from Dr Wright's own LaTeX editing account, hosted on Overleaf. Dr Wright claimed that no metadata existed in relation to the files hosted on that account, but the claim was untrue and metadata does exist and had been accessible to Dr Wright prior to the time that he made that claim. Further, when ordered to provide access to the metadata, account history, and history of editing those files on Overleaf, Dr Wright did not disclose that data until compelled by further application to the Court. Yet further, while refusing to provide the metadata associated with his Overleaf account, Dr Wright has sought to alter and embellish his story in respect of the number and type of accounts hosted on Overleaf and the supposed method of transmission of the LaTeX files.
26. The metadata, as summarised in paragraph 9.3 above, directly implicate Dr Wright as being responsible for the recent creation of the Overleaf LaTeX files as forgeries.
27. Dr Wright has sought falsely to blame his former advisors for his failure to disclose these supposedly important documents at an earlier stage:
 - 27.1. The story provided by Dr Wright in respect of failings by Dr Wright's former solicitors, Ontier, is false. Paragraph 9.5 above is repeated.
 - 27.2. The story provided by Dr Wright in respect of failings by Dr Wright's former e-disclosure providers, Alix Partners, is unsubstantiated and was not foreshadowed. When attempts were made to investigate the matter with Alix Partners, Dr Wright sought to frustrate those efforts [Macfarlanes' letter to Alix Partners dated 15 January 2024; Shoosmiths' letter to Alix Partners dated 16 January 2024]. Further, when an application was made to enable Alix Partners to provide that information, Dr Wright opposed the application. Yet further, when the court made the order sought so as to enable the required information to be provided by Alix Partners with Dr Wright's consent, Dr Wright resisted that order.

28. It was on the basis of these documents that Dr Wright attempted to delay the trial, by offering the court a *fait accompli* in respect of a trial adjournment on grounds of fairness [Wright 6 {E/21/3}; Field 1 at 34 {P3/13/11}].

The file "BDOPC.raw"

The BDO Image 'Time Capsule'

1. BDOPC.raw is presented by Dr Wright as a time capsule of his 2007 computer. The provenance of this drive is said to be that it was "created on 31 October 2007". Dr Wright has confirmed (with a statement of truth) that "the files contained in the BDO Image date up to 31 October 2007 and Dr Wright has not edited or amended any documents in the BDO Image since 31 October 2007". [Wright 6 at 4 {E/21/3}, confirming Field 1 at 25 {E/24/9}]
2. As a result of that claimed provenance of BDOPC.raw as a document in its own right, the documents taken from it are said to be "at least very strong evidence that Dr Wright is Satoshi Nakamoto". [Wright 6 at 4 {E/21/3}, confirming Field 1 at 25 {E/24/9}]

Reasons for Allegation of Forgery

3. In overview, the internal content of BDOPC.raw as a whole is not authentic to 2007 and it has been manipulated, with numerous forensic signs indicating that the manipulation took place at dates between 12 and 19 September 2023 [Madden 4 at 13.b-c {G/6/8}]. Analysis revealed that in the days prior to 20 September 2023, substantial efforts were made to modify the contents of BDOPC.raw and to do so in a way to hide when that activity was occurring and make it appear as if it had occurred in 2007 [Lynch 1 at 72 {I/5/19}]. The content of BDOPC.raw as a whole is not authentic and has been actively edited between 17 and 19 September 2023, with the edits being consistent only with editing by a user [Madden / Lynch 1 at 6 {Q/6/3}].
4. BDOPC.raw is a product of a process beginning with a computer that was last shut down on 5 July 2007. A genuine image was captured of the content of computer. That image, or a copy or version of it, was then subsequently edited in September 2023 to add, modify and delete files. This was done a time when it was attached to another computer and without the operating system in use [Madden 4 at 71, {G/6/25}]. The editing process resulted in BDOPC.raw.
5. The manipulation of BDOPC.raw was done with the computer clock set to 31 October 2007, so as to backdate the most obvious resulting digital artefacts. [Madden 7 at 77, {G/6/27}] [Lynch 1 at 76 {I/5/20}]
6. In some cases, incriminating metadata relating to 2023 was overwritten and replaced with metadata dating to 2007. In particular, the metadata within BDOPC.raw records that a folder within it, "My Files", was modified on 17 September 2023 at 13:18:17 and later back-dated to 31 October 2007. [Madden 4 at 81-82, {G/6/27}]
7. The original BDO Image was created from a computer running Windows XP. Windows XP does not record Transaction Log metadata, which was introduced in later operating system. However, BDOPC.raw does include Transaction Log data, indicating that it was used with a later version of Windows. Those Transaction logs contains extensive records editing of BDOPC.raw on 17

September 2023. Further, those Transaction Logs indicate other irregularities, such as files being backdated to appear as if created after they were last modified and accessed. [Madden 4 at 84, - 85 {G/6/28}] [Lynch 1 at 73-75 {I/5/19}]

8. All the documents among the 97 New Reliance Documents which appear to support Dr Wright's claim to be Satoshi Nakamoto were added to BDOPC.raw in 17-19 September 2023, and were added using a different user account from that used in relation to pre-existing files:
 - 8.1. Windows NTFS file systems record an identifier, the Security ID or "SID", connected with the user that edits the files. Of the user documents present on BDOPC.raw, over 99% (over 165,000 files) were apparently created with the correct Security IDs for the original BDO PC from which the original image was captured in 2007. By contrast, 71 of Dr Wright's New Reliance documents were added later, using a different user account with a different SID (the "**Manipulation User**") [Madden 4 at 93-98 {G/6/30}] [Madden / Lynch 1 at 12 {Q/6/5}]. These include all the documents among the New Reliance Documents which actually support Dr Wright's claim to be Satoshi Nakamoto.
 - 8.2. Windows NTFS file systems record Object ID metadata (ObjIDs) when some file manipulation operations are performed. The ObjIDs present on BDOPC.raw record that BDOPC.raw was edited in a series of sessions on 17, 18, and 19 September 2023. Those sessions were interspersed with other sessions backdated to 31 October 2023. [Madden 4 at 101-105 {G/6/31}]
 - 8.3. All of the ObjIDs from September 2023 were created with the SID of the Manipulation User.
9. There are multiple iterations of the drive image stored on the same Samsung Drive. Mr Madden has recovered two more which were deleted in September 2023, but which he has managed to recover: **InfoDefo9.raw** and **Image.raw**. These are identical in content to 99.5% of BDOPC.raw. The remaining 0.5% is made up of data pertaining to New Reliance Documents, and previous edits of New Reliance Documents. These drive images are among hundreds of GB of data deleted from the Samsung Drive in September 2023. [Madden 4 at 13.d-e, {G/6/8}]
10. Further, there is a file still extant within the Samsung Drive called InfoDefo9.zip, which is encrypted and password protected. InfoDefo9.zip contains a hash-identical copy of InfoDefo9.raw. [Madden 4 at 28 onwards, {G/6/12}]. It must therefore have been deleted after 17 September 2023.
11. BDPOC.raw (including each file from within it) was not properly disclosed:
 - 11.1. The file was not disclosed at the time for initial disclosure, nor extended disclosure. Further, it was not disclosed at any time in the intervening period up to 17 November 2023, during which Dr Wright provided no fewer than 12 more rounds of disclosure. Dr Wright has sought to explain away his failure to disclose the files by blaming his former representation

and the e-disclosure provider Alix Partners. [Wright 5 at 11 onwards, {E/20/5}]. Dr Wright's account is implausible and false.

11.2. When attempts were made to investigate the matter with Alix Partners, Dr Wright sought to frustrate those efforts [Macfarlanes' letter to Alix Partners dated 5 December 2023; Shoosmiths' letter to Alix Partners dated 16 January 2024].

11.3. It is to be inferred that the file was not disclosed at that time because it did not yet exist at that time.

12. The tampering took place across at least 8 different sessions spanning three days and was the result of user activity [Madden 4 at 104, {G/6/33}] [Madden / Lynch 1 at 6 {Q/6/3}]. It was not the result of automatic processes taking place on a single occasion as Dr Wright has suggested [Wright 5 at 22, {E/20/7}]. The software mentioned by Dr Wright in Wright 8 does not work in the way he suggests [Madden 3 at 160-165 {G/5/53}]. His evidence in Wright 8, Wright 9 (Appendix A), Wright 10 and Wright 12 does not explain any of the anomalies found by the parties' experts (and summarised above) [Madden 4 at 160 {G/6/54}] [Lynch 1 at 122-129 {I/5/37}] [Madden / Lynch Joint Report 1 at 9 {Q/6/3}].

Reasons for Inference of Dr Wright's Knowledge / Responsibility

13. Dr Wright was the Manipulation User and/or was responsible for editing the drive in 17-19 September 2023:

13.1. Paragraph 6 above is repeated.

13.2. Dr Wright has stated that BDOPC.raw was protected by encryption, that he was the only person who interacted with the Samsung Drive in September 2023 prior to it being imaged by KLD and that his only interaction was to check that the data diode software was available. [Wright 5 at 22 {E/20/7}]

13.3. Recovered deleted files in connection with InfoDefoo9.raw and BDOPC.raw record information about the username of accounts used to edit documents within them. These include the username "Users\CSW" [Appendix PM46 at 23 {H/278/7}] and the username "Craig S Wright" [Madden 4 at 55.b. {G/6/20}].

13.4. Dr Wright has not permitted forensic inspection of the computer connected with the Manipulation User SID.

14. The effect of the tampering is to enable Dr Wright to put forward the BDOPC.raw image as if it was a time capsule of authentic material proving his claim to be Satoshi Nakamoto, contrary to fact.

15. Dr Wright has stated that this drive has been in his possession at all material times. Further, Dr Wright has stated that the relevant content on the Samsung Drive would have been invisible to anyone but him, due to the encryption used. [Wright 5 at 20-21 {E/20/7}]
16. The Madden Report (Madden 1) was served on Dr Wright on 1 September 2023. BDOPC.raw was created following that date. Dr Wright then served a further 'Chain of Custody' document {K/11} in which he stated that preferable versions of his Reliance Documents would be found in a newly-discovered drive image. In all the circumstances, it is to be inferred that the creation of BDOPC.raw was Dr Wright's reaction to receipt of the Madden Report.
17. Paragraphs 9 and 10 above are repeated. In respect of InfoDefo9.zip:
 - 17.1. Dr Wright has stated that InfoDefo9.zip dates from 2009 and that he could not access the image [Wright 5 at 8, {E/20/4}].
 - 17.2. When asked for the password. Dr Wright stated that "he was hacked in 2020 and his password files were lost" [Shoosmiths' letter of 11 January 2024]. That is implausible.
 - 17.3. When asked for details of the alleged hack, Dr Wright stated that he had actually been hacked at least 10 times [Shoosmiths' letter of 15 January 2024]. That is at least 10 times more implausible.
 - 17.4. InfoDefo9.zip contains a hash-identical copy of InfoDefo9.raw. [Madden 4 at 28 onwards, {G/6/12}]. It must therefore have been deleted after 17 September 2023.
 - 17.5. It is to be inferred that the reason Dr Wright withheld access to the password for InfoDefo9.zip is that he knew the content of the file, and that it contained the incriminating evidence of BDOPC.raw being a recent creation, contrary to his story.
18. Dr Wright has provided a series of further technical explanations in respect of how BDOPC.raw was handled. These explanations do not affect the conclusions drawn by the experts and do not accord with the technical detail of the image itself in any event. Paragraph 12 above is repeated.

{ID_004648} and {ID_004687}

Conversions to LaTeX using the 2022 version of Pandoc

1. These are two LaTeX source documents presented by Dr Wright as if they are precursor work to the Bitcoin White Paper. {ID_004648} is presented as a draft or paper produced in his work on the MNSA programme at Charles Sturt University in 2004/5 {P4/10/4}, and it appears to be a paper on hash chains and security of voting. {ID_004687} is presented as an article on IT security with a face dating of June 2006 which refers to hash chains and Merkle trees (features of the Bitcoin system).

Reasons for Allegation of Forgery

2. These are documents which were among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch Joint Report 1 at 12 {Q/6/5}].
3. These documents have been backdated. They refer to LaTeX packages which were not released in 2007. In particular:
 - 3.1. They specify code (`\usepackage`) to use the package "**selnolig**". Selnolig was not conceived of until 2011. It was not created until 2012-2013. It was not posted to the internet until May 2013 [Loretan 1 at 5, {C/20/2}]. They also refer to the package "**xurl**", which had not been released at the stated dates of these documents [Madden 3 at 30 {G/5/16}].
 - 3.2. Selnolig requires a then-recent (2012-2013) version of LuaTeX to be used. [Loretan 1 at 6, {C/20/2}]
 - 3.3. There was no previous package called 'selnolig'. [Loretan 1 at 7, {C/20/2}]
4. These documents have been created with the **Pandoc** document conversion software. Pandoc is an open-source piece of software that can convert documents between different formats. It can generate LaTeX documents automatically [Macfarlane 1 at 3 {C/19/1}]. In particular:
 - 4.1. {ID_004687} contains a line which states that it was created as LaTeX via Pandoc, which is characteristic of the use of Pandoc. [Macfarlane 1 at 5 {C/19/1}]. Although {ID_004648} does not include that line "*LaTeX via Pandoc*", it includes the other code from the same October template.
 - 4.2. The template for conversion to LaTeX was not introduced into Pandoc at all until 2010 [Macfarlane 1 at 5 {C/19/1}].
5. The documents have been created during the course of these proceedings:
 - 5.1. Inspection of the (open-source) source code of Pandoc allows for more precise dating. The document was created after October 2022. The version of Pandoc used for creation of this

document uses code that was not committed to Pandoc until October 2022. [Macfarlane 1 at 9 {C/19/2}].

5.2. October 2022 is after the commencement of these proceedings.

6. The documents were sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. These documents were added by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

7. The effect of the tampering is to create documents which appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
8. These documents were added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright, as explained in the section "BDOPC.raw" above.
9. The further effect of tampering is to lend support to Dr Wright's new position that the Bitcoin White Paper was created in LaTeX, by providing other LaTeX documents alongside it. That story is a recent product of Dr Wright's invention.
10. Dr Wright has attached particular importance to these documents:
 - 10.1. Both are said to be important to Dr Wright's case because they are "*Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}].
 - 10.2. {ID_004648} is said to be one of Dr Wright's "*drafts and papers written by Dr Wright during his Masters of Network and System Administration (MNSA) programme at Charles Sturt University, which he pursued between 2004 and 2005. These papers show an interest in the problems in distributed in distributed computing systems and considers solutions that are precursors to the consensus-based system that underpins Bitcoin.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]
 - 10.3. {ID_004687} is said to be a version of "*a paper prepared for a 360^o Security Summit on 15 June 2006 concerned with "Implementing Effective Risk-Based Controls", which Dr Wright prepared in his role at BDO. The hash chain technology discussed in the paper is analogous to the blockchain technology used in Bitcoin.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/5}]
 - 10.4. None of Dr Wright's explanations above is compatible with the forensic evidence, and each is shown by that evidence to be false.

11. The documents were not disclosed at the proper time. They were disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.

{ID_004682}

"A Competing Transaction or Block Model"

1. The document purports to be a paper titled "A Competing Transaction or Block Model", presented as if it was precursor work to the Bitcoin White Paper. It presents as a paper discussing concepts prefiguring those addressed by the Bitcoin system, such as a time hash protocol, double-spending and conflicting block transmissions.

Reasons for Allegation of Forgery

2. This is a document which was among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch Joint Report at 12 {Q/6/5}].
3. The document has been backdated. It is an MS Word 'doc' document which contains internal metadata timestamps dating its creation and last modification time to 16 June 2007. However, it is listed as being created with MS Word version 11.9999 (MS Word 2003 SP3). MS Word 11.9999 was not released until September 2007 [Madden 3 at 92-93, {G/5/37}].
4. This document shares many characteristics similar to others of Dr Wright's previous Reliance Documents, including that it lists metadata as if it was authored by 'Lynn Wright', using MS Word 11.9999. Those documents have been shown to be manipulated and a number of examples feature in COPA's original Schedule of Forgeries.
5. The document was sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. This document was added to BDOPC.raw by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

6. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
7. This document was added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright, as explained in the section "BDOPC.raw" above.
8. Dr Wright has attached particular importance to this document:
 - 8.1. It is said to be important to Dr Wright's case because it *"is a paper titled "A Competing Transaction or Block Model", which discusses concepts developed in the Bitcoin White Paper, such the time hash protocol, double-spending and conflicting block transmissions."* [Wright 6 {E/21/3}; Schedule 1 to Field 1 {L20/223/5}"].
 - 8.2. It is said to be one of Dr Wright's *"Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper"* [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]

9. The document was not disclosed at the proper time. It was disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.
10. This document shares many characteristics similar to others of Dr Wright's previous Reliance Documents, including that it lists metadata as if it was authored by 'Lynn Wright', using MS Word 11.9999.

{ID_004695}

"The King2.rtf"

1. The document purports to be an article on network security, involving discussion of quorum systems, and part of what Dr Wright now claims was precursor work on concepts featuring in his development of Bitcoin.

Reasons for Allegation of Forgery

2. This is a document which was among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch Joint Report at 12 {Q/6/5}].
3. The document has been backdated. It is a Rich Text File created with the editor version Riched20.dll v10.0.19041. That version of Riched20 is the version associated with the May 2020 update of Windows 10. [Madden 3 at 86-91 {G/5/34}]
4. The section on BDOPC.raw above is repeated. Further:
 - 4.1. Comparing the deleted version of this document to the disclosed version shows that this document did not exist in this form on 17 September 2023. [PM46 at 12 {H/278/4}]
 - 4.2. It was modified within BDOPC.raw at some point between 17 September and 19 September 2023. [PM46 at 12 {H/278/4}]
 - 4.3. This was done with the computer clock set back to 2007, in order to backdate the document.
 - 4.4. The modification included deletion of metadata which were not contemporaneous to 2007 but which are contemporaneous to 12 September 2023.
5. A precursor version of this document was included in the deleted image InfoDef09.raw. Further, the same document was recoverable as a deleted file within BDOPC.raw [PM46 at 29 {H/278/8}]. The recovered, deleted version of this document included the following: [PM46 at 24 {H/278/7}]
 - 5.1. An indication that the author was Craig S Wright. [PM46 at 24 {H/278/7}]
 - 5.2. An indication that the operator of the software in use was Craig S Wright. [PM46 at 24 {H/278/7}]
 - 5.3. A timestamp dating its creation to 12 September 2023. [PM46 at 25.a. {H/278/8}]
 - 5.4. A Grammarly timestamp indicating it was interacted with at 12 September 2023, 07:38:30 and 244 milliseconds. [PM46 at 25.c. {H/278/8}]
 - 5.5. Reference to the use of Dragon Dictate software. [PM46 at 25.d. {H/278/8}]

- 5.6. A reference to the use of Zotero software version 6.0.27 [PM46 at 24 {H/278/7}]. That version of Zotero was not released until 5 September 2023 [PM46 at 20 {H/278/7}].
6. This document and the folder in which it was located contain metadata irregularities indicating the use of clock manipulation to alter their timestamps. [PM46 at 12 {H/278/4}]
7. The document was sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. This document was added to BDOPC.raw by the Manipulation User.
8. Part of the chain of editing of document is another deleted document recovered from BDOPC.raw called "the King.rtf". [PM46 at 13 {H/278/5}]. "The King.rtf" was edited within one minute of "The King2.rtf". "The King.rtf" contains:
 - 8.1. References to the same user as author and operator of the software, "Craig S Wright". [PM46 at 18 {H/278/6}]
 - 8.2. The same Grammarly timestamp indicating it was interacted with at 12 September 2023 07:38:30 and 244 milliseconds. [PM46 at 18 {H/278/6}]
 - 8.3. References to the font Calibri Light [PM46 at 18 {H/278/6}], a font which had not yet been designed in 2007.
 - 8.4. References to the same 5 September 2023 version of Zotero [PM46 at 18 {H/278/6}].
9. Other related Dragon Dictate files, "The King.dra" and "The King2.dra" had existed within InfoDefo9.raw and were deleted, and those files show similarly inconsistent metadata. [Madden 4 at 30-40 {G/6/13}]

Reasons for Inference of Dr Wright's Knowledge / Responsibility

10. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
11. This document was added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. The section "BDOPC.raw" above is repeated.
12. The deleted documents record the user and editor as "Craig S Wright". This information was deleted.
13. The deleted documents record the use of Grammarly in connection with the documents. Dr Wright is a user of Grammarly software.
14. The deleted documents record the use of Dragon Dictate in connection with the documents. Dr Wright is a user of Dragon Dictate software.

15. The deleted documents record the use of Zotero in connection with the documents. Dr Wright is a user of Zotero software.
16. Dr Wright has attached particular importance to this document:
 - 16.1. It is said to be important to Dr Wright's case because it is one of Dr Wright's "versions of a paper titled *"The King's Wi-Fi: Leveraging Quorum Systems in the Byzantine Generals Problem for Enhanced Network Security"* that Dr Wright produced for an examination at the Sans Institute. The papers describe using a proof-of-work chain to solve a problem in distributed computing known as the Byzantine Generals Problem, which is concerned with how to achieve consensus in groups that include hostile actors." [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/5}]
 - 16.2. It is said to be one of Dr Wright's "Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]
17. The document was not disclosed at the proper time. It was disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.

{ID_004697}

False LLM Proposal "Proposala.rtf"

1. The document purports to be a version of Dr Wright's LLM dissertation Proposal dating to 2007. There are versions of that proposal among his original Reliance Documents, some of which appear in COPA's original Schedule of Forgeries. Dr Wright's evidence is that his LLM dissertation Proposal featured ideas which contributed to his development of Bitcoin.

Reasons for Allegation of Forgery

2. This is a document which was among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch Joint Report at 12 {Q/6/5}].
3. The document has been backdated. It is a Rich Text File created with the editor version Riched20.dll v10.0.19041. That version of Riched20 is the version associated with the May 2020 update of Windows 10. [Madden 3 at 86-91 {G/5/34}]
4. The section on BDOPC.raw above is repeated. Comparing the deleted version of this document to the disclosed version shows that this document did not exist in this form on 17 September 2023. It was entirely added to BDOPC.raw at some point between 17 September and 19 September 2023. This was done with the computer clock set back to 2007, in order to backdate the document.
5. At the same time of adding this document (in RTF format), another version of Dr Wright's supposed LLM Proposal was deleted (in MS Word format). The deleted version of the document remained recoverable from within BDOPC.raw [PM46 at 101-105 {H/278/35}]. The deleted document was called "LLM_Proposala.doc" and is hash-identical to a document previously analysed by Mr Madden {ID_003935}. It contains indicia of tampering, including the presence of a Grammarly timestamp dating to 18 August 2019, and was shared on Slack by Dr Wright on 18 August 2019. [PM43 at 45-49 {H/219/18}]
6. The document was sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. This document was added to BDOPC.raw by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

7. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
8. This document was added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. Paragraph 12 of the section "BDOPC.raw" above is repeated.

9. The version of this document which was deleted within BDOPC.raw {ID_003935} was addressed in the Madden Report and shown to be inauthentic. It is to be inferred that Dr Wright deleted that document from BDOPC.raw in response to the findings in the Madden Report.
10. Dr Wright has attached particular importance to this document:
 - a. It is said to be important to Dr Wright's case because it is "*an early version / draft of Dr Wright's LLM proposal on "Payment Providers and Trusted Third Parties as Defined in the Law of the Internet". Dr Wright's LLM Proposal uses language similar to language found in the Bitcoin White Paper, for example the phrase: "What is needed is an electronic payment system based on some form of cryptographic proof that allows two willing parties to transact electronically directly with each other without the need of a trusted third party or Internet intermediary", which appears in the Introduction section of the Bitcoin White Paper.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/2}].
 - b. It is said to be one of Dr Wright's "*Versions of Dr Wright's LLM Proposal*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/2}]
11. The document was not disclosed at the proper time. It was disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.
12. The document was sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. This document was added to BDOPC.raw by the Manipulation User.

{ID_004712} and {ID_004713}

C++ Code

1. These documents purport to be C++ source code, presented as code files for models of Bitcoin, as if Dr Wright had in October 2007 already been working on such code using C++ (the same coding language as used by Satoshi Nakamoto).

Reasons for Allegation of Forgery

2. These documents are among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch 1 at 12 {Q/6/5}].
3. These documents have been backdated. They refer to the use of C++ elements that were not in existence at their purported date of October 2007. In particular,
 - 3.1 They call on the use of the libraries "<chrono>", "<thread>" and "<random>". These libraries are part of the C++11 standard, first released in 2011. [Stroustrup 1 at [4] {C/23/1}]
 - 3.2 <chrono> was not first proposed until 11 June 2008. [Hinnant 1 at 4 {C/18/1}]
 - 3.3 The first discussion of what became <chrono> was not published until 19 January 2008, and was not at that time called <chrono>. [Hinnant 1 at 5 {C/18/2}]
 - 3.4 Within <chrono>, these documents call for the use of the function "sleep_for". By 19 January 2008, the function was referred to as 'sleep' (not yet 'sleep_for'). [Hinnant 1 at 5 {C/18/2}]
 - 3.5 By that time, neither <chrono> nor "sleep_for" yet existed, even on the personal computer of its developer. [Hinnant 1 at 5 {C/18/2}]
4. The documents were sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. These documents were added by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

5. The effect of the tampering is to make the documents appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
6. The further effect of the tampering is to lead to source code files being presented as if they are relevant to the case, contrary to fact. This includes human-readable comments within the source code such as "// Calculate Total Proof of Work".

7. These documents were added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. The section "BDOPC.raw" above is repeated.
8. Dr Wright has attached particular importance to these documents:
 - 8.1 Both are said to be important to Dr Wright's case because they are "*C++ code files code for a simplified model of Bitcoin to evaluate transaction processing, cryptographic security, and consensus mechanisms. This is analysed and described in ID_004710, which is a LaTeX file that codes for a paper setting out a "Game Theoretical Analysis of Node Strategies in a Decentralised System"*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, L20/223/6)].
 - 8.2 They are said to be one of Dr Wright's "*Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]
9. The documents were not disclosed at the proper time. They were disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.
10. The documents were sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. These documents were added to BDOPC.raw by the Manipulation User.

{ID_004715}, {ID_004716}, {ID_004719}

“NG3.tex” and related files

1. Dr Wright has disclosed a set of LaTeX files (including {ID_004716} and {ID_004719} titled as “Section2.tex”, “Section4.tex”, among others). These apparently constitute sections of one document (NG3.tex, which is {ID_004715}). NG3.tex is a LaTeX source document titled “An In-depth Analysis of Proof-of-Work Calculations in the Hashcoin White Paper”. That document presents as if it was a paper building on calculations in the “Hashcoin” or “TimeChain white paper” and purports to represent work on the Bitcoin system and/or Bitcoin related concepts.
2. This group of three documents is taken together as representative of that set.

Reasons for Allegation of Forgery

3. These documents are among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties’ experts agree were manipulated [Madden / Lynch Joint Report at 12 {Q/6/5}].
4. The documents have been backdated.
5. The content of {ID_004715} was written by ChatGPT. In particular:
 - 5.1. A deleted file containing part of the content of {ID_004715} was recovered from InfoDef09.raw. The file was named “Section7.tex”: [PM46 at 92-99 {H/278/25}]. The content of the deleted “Section7.tex” begins with the words:

“Certainly, here’s the LaTeX code for Section 7, which covers Recommendations.

``` latex

- 5.2. The content of the deleted “Section7.tex” ends with the words:

This section presents a set of recommendations based on the research findings, targeting both practitioners and academic researchers. The citations are...

- 5.3. That content is entirely consistent with and indicative of responses provided by an unconditioned ChatGPT to the question “Are you able to output some template latex code for section 7 which relates to recommendations?” including the structure, length of response, the use of “Certainly”, and the use of syntax “``` latex” to introduce LaTeX code. [PM46 at 92-99 {H/278/25}]

- 5.4. That content was deleted from the version of the equivalent document disclosed within BDOPC.raw. {ID_004715} however does include the proposed code generated by ChatGPT within the body of the document.
- 5.5. ChatGPT did not exist in 2007.
6. The section on BDOPC.raw above is repeated. Comparing the deleted versions of these documents to the disclosed versions shows that they did not exist in this form on 17 September 2023. They were modified within BDOPC.raw at some point between 17 September and 19 September 2023. This was done with the computer clock set back to 2007, in order to backdate the document. [Madden 4 at 133-135 {G/6/41}]
7. The modifications made in September 2023 included:
 - 7.1. In respect of {ID_004716}, editing a past-tense reference to “the original Bitcoin white paper”, so that it was modified into a future-tense reference to “the proposed timecoin system”. [PM46 at 89 {H/278/23}]
 - 7.2. In respect of {ID_004719}, editing a past-tense reference to “Bitcoin” to read as a reference to “Timecoin”; and adding other text [PM46 at 90 {H/278/24}].
 - 7.3. In respect of other parts of {ID_004715}, changing the purported authorship date from 2008 to 2007, and changing references to the “original Bitcoin white paper” to “Time Chain” or “Hashcoin” white paper. [PM46 at 82 {H/278/19}].
8. The metadata of these documents has been manipulated in order to make them appear to have been created at an earlier date than their true creation date. [PM46 at 86-88 {H/278/22}]
9. The documents were sourced from BDOPC.raw. The section “BDOPC.raw” above is repeated. These documents were added by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

10. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
11. The further effect of tampering is to lend support to Dr Wright's new position that the Bitcoin White Paper was created in LaTeX, by providing other LaTeX documents alongside it. That story is a recent product of Dr Wright's change in his account.
12. These documents were added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. Paragraph 12 of the section “BDOPC.raw” above is repeated.
13. Dr Wright has attached particular importance to these documents:

- 13.1. NG3.tex is said to be one of Dr Wright's "*LaTeX files which, when compiled, generate draft articles under the pseudonym "Satoshi" or "Satoshi Nakamoto" relating to concepts later used in the Bitcoin White Paper.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/3}]
- 13.2. NG3.tex is said to be important to Dr Wright's case because it "*is a LaTeX file coding for an article titled: "An In-depth Analysis of Proof-of-Work Calculations in the Hashcoin White Paper: Exploring Alternative Strategies", which comments on concepts similar to the concepts in the Bitcoin Whitepaper, such as proof-of-work in decentralised digital transactions. The article refers to a hashcoin white paper. The author is stated to be "Satoshi Nakamoto" and the article bears the date 15 September 2007.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/3}]
- 13.3. The Sections documents are said to be a version of "*LaTeX files which, when compiled, generate sections of the "Timecoin" white paper*", meaning {ID_000254} [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/3}]. However, it is believed that this is an error, since the Sections documents do not form part of any version of that paper. It is believed that Dr Wright relies upon them as forming part of NG3.tex, to which he attaches importance for the reasons given above.
14. The documents were not disclosed at the proper time. They were disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.

{ID_004722} and {ID_004723}

“LPA.tex” and “LP1.tex”

1. These are two LaTeX source documents presented as if they are precursor work to the Bitcoin White Paper. The first presents as an article with Satoshi named as author, while the second presents as a version of the same article with Dr Wright named as author. Each addresses quorum systems, a subject which Dr Wright now maintains influenced his development of Bitcoin.

Reasons for Allegation of Forgery

2. These documents are among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch 1 at 12 {Q/6/5}].
3. The section on BDOPC.raw above is repeated. Comparing the deleted versions of these documents to the disclosed versions shows that they did not exist in this form on 17 September 2023. They were modified within BDOPC.raw at some point between 17 September and 19 September 2023. This was done with the computer clock set back to 2007, in order to backdate the document. [PM46 at 111 – 117 {H/278/38}]
4. The modifications made included:
 - 4.1. In respect of {ID_004722}, altering the dates of articles referred to, respectively from “2009” to “2006”, and from “2016” to “?” [PM46 at 112 {H/278/39}].
 - 4.2. Removing lines of the document relating to the previously-cited papers from 2009 and 2016 (while leaving blank lines in their place) [PM46 at 113 {H/278/39}].
 - 4.3. In respect of {ID_004723}, deleting lines referring to previously-cited articles dating from after 2007 (while leaving blank lines in their place) [PM46 at 117-118 {H/278/41}].
 - 4.4. Altering the metadata of the documents such that they appeared to be created earlier than they were [PM46 at 111 and 119 {H/278/38}].
5. The documents were sourced from BDOPC.raw. The section “BDOPC.raw” above is repeated. These documents were added by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

6. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
7. The further effect of tampering is to lend support to Dr Wright's new position that the Bitcoin White Paper was created in LaTeX. That story is a recent product of Dr Wright's change in his account.

8. These documents were added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. the section "BDOPC.raw" above is repeated.
9. Dr Wright has attached particular importance to these documents:
 - 9.1. {ID_004722} is said to be one of Dr Wright's "*LaTeX files which, when compiled, generate draft articles under the pseudonym "Satoshi" or "Satoshi Nakamoto" relating to concepts later used in the Bitcoin White Paper.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/3}]
 - 9.2. {ID_004722} is said to be important to Dr Wright's case because it is "*a LaTeX file coding for an article titled "Predicates in Quorum Systems", which discusses concepts that underpin the technology of Bitcoin, such as the use of quorum systems to provide security in distributed systems. The author of the paper is stated to be "Satoshi" and the article bears the date 30 August 2006.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/3}]
 - 9.3. {ID_004723} is said to be "*a version of the "Predicates in Quorum Systems" paper at ID_004722, but listing Dr Wright as the author rather than "Satoshi".*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/6}]
10. The documents were not disclosed at the proper time. They were disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.

{ID_004729}

"Hash Based Shadowing" (Scanned Manuscript Document)

1. The document is a page of handwritten content titled "Hash Based Shadowing" and presented as if it is precursor work to Bitcoin (i.e. work addressing a concept supposed contributing to the development of Bitcoin).

Reasons for Allegation of Forgery

2. This document is among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch 1 at 12 {Q/6/5}].
3. The section on BDOPC.raw above is repeated. Comparing the deleted version of this document to the disclosed version shows that this document did not exist in this form on 17 September 2023. It was entirely added to BDOPC.raw at some point between 17 September and 19 September 2023. This was done with the computer clock set back to 2007, in order to backdate the document.
4. Though this document did not exist in InfoDefo9.raw, a version did which is considered to be a precursor. The precursor was named "Hash Based Shadowing.TIF" [PM46 at 126-130 {H/278/44}]
5. Hash Based Shadowing.TIF contains metadata with the following information [PM46 at 126-128 {H/278/44}]:
 - a. it was created on 12 March 2018;
 - b. it was created with MS Windows Photo Viewer 10.0.14393.0, software associated with Windows 10 version 1607, which was released in August 2016; and
 - c. it was scanned with a Xerox DocuMate 5540 scanner.
6. The Xerox DocuMate 5540 model of scanner was not produced until 18 February 2015 [Sherrell 19 at 12 {P1/19/3}].
7. The document was sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. This document was added to BDOPC.raw by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

8. The document is in Dr Wright's own handwriting.

9. The Xerox Documate 5540 Scanner is Dr Wright's current scanner. It is the same scanner used by Dr Wright on 11 December 2023 to scan his own Seventh Witness Statement served in these proceedings. Dr Wright's Seventh Witness Statement contains Dr Wright's own signature. [Sherrell 19 at 16 {P1/19/5}]
10. The metadata relating to the Xerox Documate Scanner and other metadata was deleted when the document was converted from its apparent precursor version (TIF, a metadata-light format) to its disclosed version (bmp, a no-metadata format).
11. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
12. This document was added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. The section "BDOPC.raw" above is repeated.
13. Dr Wright has attached particular importance to this document:
 - a. It is said to be important to Dr Wright's case because it is one of Dr Wright's "*scans of handwritten notes addressing concepts that Dr Wright developed into Bitcoin. ID_004726 is concerned with hash chains and hash tokens, ID_004727 is concerned with the use of hash chain / tokens in bidding systems, ID_004728 is concerned with distributed quorum-based oracles and their application in digital cash and smart contract systems, and ID_004729 to ID_004731 are concerned with hash-based shadowing.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/7}].
 - b. It is said to be one of Dr Wright's "*Notes, drafts and articles produced by Dr Wright during his LLM at Northumbria University.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/7}]
14. The document was not disclosed at the proper time. It was disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.

{ID_004732} and {ID_004734}

Variations on "Secure and Trustworthy Voting"

1. These documents are two versions of a long paper addressing quorum-based voting in distributed networks and titled "Secture and Trustworthy Voting". This is a subject which Dr Wright now maintains influenced his development of Bitcoin. One is a plaintext document, "Q.txt". Another is an RTF equivalent of the same document, "IT1581b.rtf".

Reasons for Allegation of Forgery

2. These documents are among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch 1 at 12 {Q/6/5}].
3. The document {ID_004734} has been backdated. It is a Rich Text File created with the editor version Riched20.dll v10.0.19041. That version of Riched20 is the version associated with the May 2020 update of Windows 10. [Madden 3 at 86-91 {G/5/34}], [PM46 at 149 {H/278/53}]
4. The section on BDOPC.raw above is repeated. Comparing the deleted version of these documents to the disclosed versions shows that they did not exist in this form on 17 September 2023. They were modified within BDOPC.raw at some point between 17 September and 19 September 2023. This was done with the computer clock set back to 2007, in order to backdate the document. [PM46 at 136 and 141 {H/278/46}]
5. The modifications included the following:
 - 5.1. In {ID_004732}, altering the words "blockchains" to "hash chains" [PM46 at 136 {H/278/46}].
 - 5.2. In {ID_004732}, deleting references to the dates of articles published in 2016 and 2017 and replacing them with "(?)" [PM46 at 136 {H/278/46}].
 - 5.3. Deleting a long paginated Table of Contents, with page numbers referring to formatted pages. The inclusion of formatted page numbers in a plain text document is not consistent with the technical limitations of plain text documents. It is consistent with a plain text document being created by copying and pasting from a pre-existing MS Word or RTF document [PM46 at 136.c. {H/278/47}].
 - 5.4. In respect of {ID_004734}, the equivalent edits as displayed in {ID_004732} [PM46 at 141 {H/278/49}] (note incorrect reference in that paragraph to {ID_004737}).
6. The documents were sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. These documents were added by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

7. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.
8. These documents were added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. The section "BDOPC.raw" above is repeated.
9. Dr Wright has attached particular importance to these documents:
 - 9.1. Both are said to be important to Dr Wright's case because they are versions of "a paper titled: *Secure and Trustworthy Voting in Distributed Networks: A Quorum-Based Approach with Hash Chains and Public Key Infrastructure*". Dr Wright produced this paper during his Master of Information Systems Security research at Charles Sturt University. The paper considers secure voting mechanisms in distributed systems through a combination of quorum-based voting, hash chains, and Public Key Infrastructure, which is analogous to core elements of Bitcoin." [Wright 6 {E/21/3}; Schedule 1 to Field 1, L20/223/6].
 - 9.2. They are said to be "Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]
10. The documents were not disclosed at the proper time. They were disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.

{ID_004733}

“Internal Controls...Backend Operations”

1. The is an RTF file titled “Internal Controls and Immutable Logging in Auditing Backend Operations of Messaging Systems.rtf”. Dr Wright has relied upon it as showing interest in / research on the concept of immutable logging which he claims influenced his development of Bitcoin.

Reasons for Allegation of Forgery

2. This document is among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties’ experts agree were manipulated [Madden / Lynch 1 at 12 {Q/6/5}].
3. The document has been backdated. It is a Rich Text File created with the editor version Riched20.dll v10.0.19041. That version of Riched20 is the version associated with the May 2020 update of Windows 10. [Madden 3 at 86-91 {G/5/34}] [PM46 at 149 {H/278/53}]
4. The section on BDOPC.raw above is repeated. Comparing the deleted version of this document to the disclosed version shows that this document did not exist in this form on 17 September 2023. It was modified within BDOPC.raw at some point between 17 September and 19 September 2023. This was done with the computer clock set back to 2007, in order to backdate the document.
5. The modifications included:
 - 5.1. altering the metadata of the file to make it appear to have been created earlier than it actually was [PM46 at 146]; and
 - 5.2. deleting a reference to “The Data Protection Act 2018” and replacing it with the words “data protection law globally” [PM46 at 147 {H/278/52}].
6. The Data Protection Act 2018 did not exist in 2007.
7. The document was sourced from BDOPC.raw. The section “BDOPC.raw” above is repeated. This document was added to BDOPC.raw by the Manipulation User.

Reasons for Inference of Dr Wright’s Knowledge / Responsibility

8. The effect of the tampering is to make the document appear to be supportive of Dr Wright’s claim to be Satoshi Nakamoto, contrary to fact.
9. This document was added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. Paragraph 12 of the section “BDOPC.raw” above is repeated.

10. The document was not disclosed at the proper time. It was disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.
11. Dr Wright has attached particular importance to this document:
 - 11.1. It is said to be among Dr Wright's "*Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]
 - 11.2. It is said to be important to Dr Wright's case because it is a "*paper titled "Internal Controls and Immutable Logging in Auditing Backend Operations of Messaging Systems". The concept of immutable logging discussed in this paper connect Dr Wright's earlier research on hash chains with the blockchain technology that underpins Bitcoin.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/7}]

{ID_004736}

"ESDT.tex"

1. The document is a LaTeX source presented as if it was precursor work to the Bitcoin White Paper created during Dr Wright's employment at BDO. Dr Wright relies upon it as a draft addressing technical concepts which influenced his development of Bitcoin.

Reasons for Allegation of Forgery

2. This document is among the 71 New Reliance Documents that were inserted into the BDO Drive by the editing process and which the parties' experts agree were manipulated [Madden / Lynch 1 at 12 {Q/6/5}].
3. Copies of the document are also located on the Samsung Drive. These copies display signs of metadata editing and clock manipulation. [PM46 at 74-79 {H/278/17}]
4. A related LaTeX file has been recovered which encodes the same textual content in a different way. That document had been deleted but was recoverable from within the Samsung Drive. The structure of that file is consistent with the file being generated automatically by software conversion tools (rather than being authored by hand). [Madden 4 at 67-70 {H/278/16}].
5. There is a related file {ID_004735} which appears intended to create an image for the paper. The code in that file is consistent with having been generated by conversion tools such as Aspose. [Madden 3 at 75 {G/5/31}]
6. A related document, ESDT.pdf, was recovered from the Samsung Drive. ESDT.pdf was a compiled form of {ID_004736} but was deleted and emptied from the Recycle Bin in September 2023 [PM46 at 41-52 {H/278/10}]. The metadata associated with the deleted file indicates that it was modified on 16 September 2023, but the other timestamps have been backdated to 31 October 2007.
7. The metadata of this document (when compared with metadata of other documents related to it) displays signs of metadata editing directly using specialised metadata editing tools. [Madden 3 at 52-63 {G/5/23}]
8. The document was sourced from BDOPC.raw. The section "BDOPC.raw" above is repeated. This document was added to BDOPC.raw by the Manipulation User.

Reasons for Inference of Dr Wright's Knowledge / Responsibility

9. The effect of the tampering is to make the document appear to be supportive of Dr Wright's claim to be Satoshi Nakamoto, contrary to fact.

10. The further effect of tampering is to lend support to Dr Wright's new position that the Bitcoin White Paper was created in LaTeX. That story is a recent product of Dr Wright's change in his account.
11. This document was added to BDOPC.raw by the Manipulation User. The Manipulation User is Dr Wright. Paragraph 12 of the section "BDOPC.raw" above is repeated.
12. Dr Wright has attached particular importance to this document:
 - a. It is said to be among Dr Wright's "*Notes, drafts and articles addressing technical concepts that underpin the concepts developed in the Bitcoin White Paper*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/4}]
 - b. It is said to be important to Dr Wright's case because it is a version of "*a paper prepared for a 360° Security Summit on 15 June 2006 concerned with "Implementing Effective Risk-Based Controls", which Dr Wright prepared in his role at BDO. The hash chain technology discussed in the paper is analogous to the blockchain technology used in Bitcoin.*" [Wright 6 {E/21/3}; Schedule 1 to Field 1, {L20/223/5}]
13. The document was not disclosed at the proper time. It was disclosed instead from the BDOPC.raw image. BDOPC.raw is not a reliable source because it has been manipulated by Dr Wright. The section "BDOPC.raw" above is repeated.