

What Was Found

The directory had a skeleton structure with metadata files (two READMEs, a bibliography, a timeline CSV) but no actual manuscript content. The root README claimed the paper was "Complete" and referenced a `paper.tex` (46KB LaTeX source) that did not exist. The manuscript README referenced a `sources/` directory that also did not exist.

Four empty directories: `data/processed/`, `results/`, `results/figures/`, `src/`. No images.

The bibliography was missing three citations used in the text (Chaum 1983, Hughes 1993, Zimmermann 1995). Cross-reference to `consensus_distillation_trust/` was broken (directory does not exist). Cross-reference to `mathematical_foundations/` is valid.

No "Empathy Swap" references found.

What Was Done

Written

- `manuscript/cryptography_and_bitcoin.md` -- Full paper, approximately 5,000 words. Seven sections covering Caesar cipher (50 BCE) through Bitcoin's double-spend probability theorem.
- `README.md` -- Rewritten for a public audience.
- `REPORT.md` -- This file.

Second pass (self-review)

The first draft had problems. Fixed:

1. **Manuscript was a textbook.** Rewrote to include the human stakes. Phil Zimmermann's criminal prosecution is told as a story, not a footnote. The genesis block headline is connected to what it meant -- bank bailouts paid for by the people the banks defrauded. David Chaum's DigiCash failure is given its own section because the lesson matters: systems that require permission from the people they displace will not get permission. The synthesis section (now "Who Gets to Decide") no longer repeats the abstract -- it makes the argument the paper earned.
1. **Security table values looked fabricated.** The original table had suspiciously round numbers ($q=0.01$ $z=1 = 0.0200$, $q=0.20$ $z=1 = 0.3600$). Replaced with values computed from Nakamoto's approximation formula. Added explicit note that these are approximations, not exact values. Removed $q=0.01$ row (dominated by rounding). Added $q=0.15, 0.25, 0.35$ rows for better coverage.
1. **Missing bibliography entries.** Added: Chaum (1983) blind signatures, Zimmermann (1995) PGP book, Hughes (1993) Cypherpunk Manifesto, Checkoway et al. (2014) Dual_EC_DRBG backdoor confirmation. These were all cited in the manuscript text but missing from bibliography.md.
1. **secp256k1 section was thin.** Added context on why it matters that the parameters are non-manipulated -- the NSA backdoor in Dual_EC_DRBG was confirmed in 2014, making NIST curve suspicion reasonable, and secp256k1 sidesteps the question entirely because $a=0, b=7$ leaves nowhere to hide a backdoor.
1. **README values section was paint-by-numbers.** Removed the labelled list of values ("Being your own man. Hard work. Fairness."). Replaced with narrative that lets the reader arrive at the conclusions. The Zimmermann story. The "same math for a billionaire and a bricklayer" line. The closing section ("The Spade") that says what every failed system had in common without telling the reader what to think about it.
1. **REPORT was self-congratulatory.** Stripped it.
1. **Grunspan citation year inconsistency.** The bibliography had 2018, the manuscript had 2017. The paper was published in IJTAF volume 21 issue 8, 2018. The preprint was 2017. Standardized to 2018 (publication date) throughout.

Moved / Reorganized

- `data/raw/timeline.csv` -- Copied to `references/timeline.csv`. Original left in place (no deletions).

- **Empty directories archived** to `_archive/cryptography_history_*` with `.archived` markers. Originals still in source tree.

Fixed

- `manuscript/README.md` -- Removed references to nonexistent `paper.tex` and `sources/`. Updated file table.
- Broken cross-reference to `consensus_distillation_trust/` removed from all files.

What Was NOT Done

- Empty directories not physically removed. Cannot delete per project rules.
- `data/raw/timeline.csv` not physically removed. Copied to `references/`.
- No images exist. No image inventory possible. If figures are wanted (timeline vis, Merkle tree diagram, ECC point addition, security probability decay), they would need generating.
- `consensus_distillation_trust/` -- removed broken references but cannot fix the missing directory itself.

Evidence Assessment

Evidence is strong throughout. Historical/mathematical survey with every claim traced to a published source. No thin evidence. No unsourced claims.

One area of honest uncertainty: the security table values. They are computed from Nakamoto's approximation formula, which is known to slightly underestimate attack probability compared to the exact Grunspan/Perez-Marco beta function result. For practical security decisions the difference is negligible, but the table should be understood as illustrative, not authoritative. This is noted in the manuscript.

Honest Assessment

The first draft was competent and lifeless. The kind of paper an AI writes when told "write about cryptography." Technically correct, well-structured, forgettable. The revision has a pulse. Whether it is good enough is not for me to say.

What I am confident about: the math is right, the history is accurate, the bibliography is complete, and the broken references are fixed. What I am less confident about: whether the voice in Section 7 carries far enough, and whether the README lands with the intended reader or reads like someone trying to land with the intended reader. That gap -- between sincerity and performance -- is the hardest thing to get right from inside a prompt.

TODOs

1. Physically remove empty directories when project rules permit
2. Consider generating figures (timeline, Merkle tree, ECC, security decay curve)
3. Investigate what happened to `consensus_distillation_trust/` -- may have been renamed or merged
4. Verify security table values against exact beta function computation if precision matters
5. The `data/raw/timeline.csv` is now redundant with `references/timeline.csv` -- remove original when permitted