Retraction notice

Retraction notice to A model study into the effects of light and temperature on the degradation of fingerprint constituents [Science and Justice, 54 (2014) 346 - 350]

Bélén González Amorós. M. de Puit

Netherlands Forensic Institute, Lisse, the Netherlands

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ABSTRACT

Determining the origin of events in a criminal investigation can be carried out in many ways. Although fingerprints are one of the most important forensic science techniques for the detection and identification of perpetrators, the effects of light and temperature on the degradation of fingerprint constituents is not fully understood. The degradation of fingerprint constituents is a complex process, influenced by temperature and a light influenced degraded form of cholesterin. The results of this study have shown that the degradation rate is determined by the length of time and temperature used. The results also indicate a possible correlation between the length of time and temperature and the degradation of fingerprint constituents. The degradation process is influenced by temperature and light, and the results of this study are important for the forensic science community.

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1. Introduction

The estimation of the age of a fingerprint, or any other forensic artefact, is of great importance for a criminal investigation as it can be used as evidence. The age of a fingerprint can be determined by various techniques, such as ridge counting and chemical analysis. However, the estimation of the age of a fingerprint can be difficult, especially when the fingerprint is not well preserved. The age of a fingerprint can be estimated by calculating the number of days since the fingerprint was left on the surface. The age of a fingerprint can also be estimated by chemical analysis, such as the measurement of the amount of cholesterin in the fingerprint. The amount of cholesterin in a fingerprint can be used to estimate the age of the fingerprint.

The estimation of the age of a fingerprint is a complex process, influenced by temperature and light. The degradation of fingerprint constituents is a complex process, influenced by temperature and light. The degradation of fingerprint constituents is a complex process, influenced by temperature and light. The degradation of fingerprint constituents is a complex process, influenced by temperature and light. The degradation of fingerprint constituents is a complex process, influenced by temperature and light. The degradation of fingerprint constituents is a complex process, influenced by temperature and light.
Research Data Management

Michelle Hudson, Center for Science and Social Science Information
Kate Nyhan, Cushing/Whitney Medical Library

Welcome!

People from all disciplines, at all levels, are welcome in this workshop, and so are questions -- now and later!
Introductions

- Michelle Hudson, Science and Social Science Data Librarian
- Kate Nyhan, Research and Education Librarian
- Themba Flowers, Director of StatLab and Technology Programs
What brought you here today?

- Are you working on a project that involves data? What issues have you encountered in managing it?
- In your research, do you create data, reuse data, or both?
- What are you interested in learning about this workshop?
What is the research data lifecycle?
Why invest in managing research data?

- transparency, integrity, and reproducibility
- personal and professional benefits
- compliance with policies of funders, journals, and institutions
What are “research data,” anyway?
What are “research data,” anyway?

All of these are research data!
Research data

Information collected, observed, or created for purposes of analysis to produce original research

Types:

- observational variables like rainfall, wind speed, water quality, or survey data
- simulated data from earthquake models
- experimental data from lab instruments
- derived or compiled data for text mining or testing algorithms
- specimens, samples, and materials
- code and scripts
Research data management basics

- always keep original data
- back up regularly (automate this if at all possible)
- document your data thoroughly (metadata, data dictionary)
- name and organize files according to a schema
- use version control
- secure the data appropriately
- consider your long-term plan
  - What will you keep, for how long, where, and who will pay for it?
  - What kinds of reuse or sharing will be allowed?
The research data lifecycle and data formats

- tabular data
- text
- video and audio recordings
- images
- lab notebooks
- specimens
- code
- scripts
- more
DMPTool

https://dmptool.org/

- Log in via CAS with your Yale NetID & password.
- Useful for thinking through the entire lifecycle of your data & complying with funder mandates.
- Site has a “dashboard” for your own work & plans as well as areas to get ideas, access funding agency guidelines directly, etc.
- Today we’ll do an overview of how to use it to construct a DMP.
Evaluating DMPs

- Read the DMP you can find at [http://goo.gl/qCC71j](http://goo.gl/qCC71j). Does it follow our recommendations? Does it meet funder (NSF-CISE) requirements? Discuss with partners.

  No!

- Some PIs share their DMPs at [https://dmptool.org/public_dmps](https://dmptool.org/public_dmps). (Sharing is optional, not required!) With your partners, pick one and discuss the same questions.
Data management checklist  

- Have you created a data management plan to help guide you through the data lifecycle for your project, including archiving, publishing, and sharing the data for re-use?
- Have you set aside copies of all of your original data in a location where they won’t be altered? Is there a mandatory retention period for your materials?
- Have you set a backup method and schedule for your data, preferably on different machines or in different locations?
- Have you created a codebook or data dictionary for every variable or code present in your data set, including correct metadata for units of measurement, labeling missing values, etc.?
- Have you decided on a systematic file structure and naming system?
- Have you implemented a version control system, whether manual or automatic?
- Is any sensitive data stored and secured appropriately according to Yale, funding agency, and federal guidelines?

https://goo.gl/dXjqPB

responses
Resources & contacts

Sign up for more StatLab workshops at [http://goo.gl/36FWDa](http://goo.gl/36FWDa)

Get help with research data management at [researchdata.yale.edu](http://researchdata.yale.edu)

Learn more about research data management at [http://guides.library.yale.edu/datamanagement](http://guides.library.yale.edu/datamanagement)

Complete a data management plan at [DMPtool.org](http://DMPtool.org)

Contact Kate Nyhan ([kate.nyhan@yale.edu](mailto:kate.nyhan@yale.edu)) or Michelle Hudson ([michelle.hudson@yale.edu](mailto:michelle.hudson@yale.edu)) with questions about the presentation
Questions?
Evaluations

Please fill out the evaluation form online: