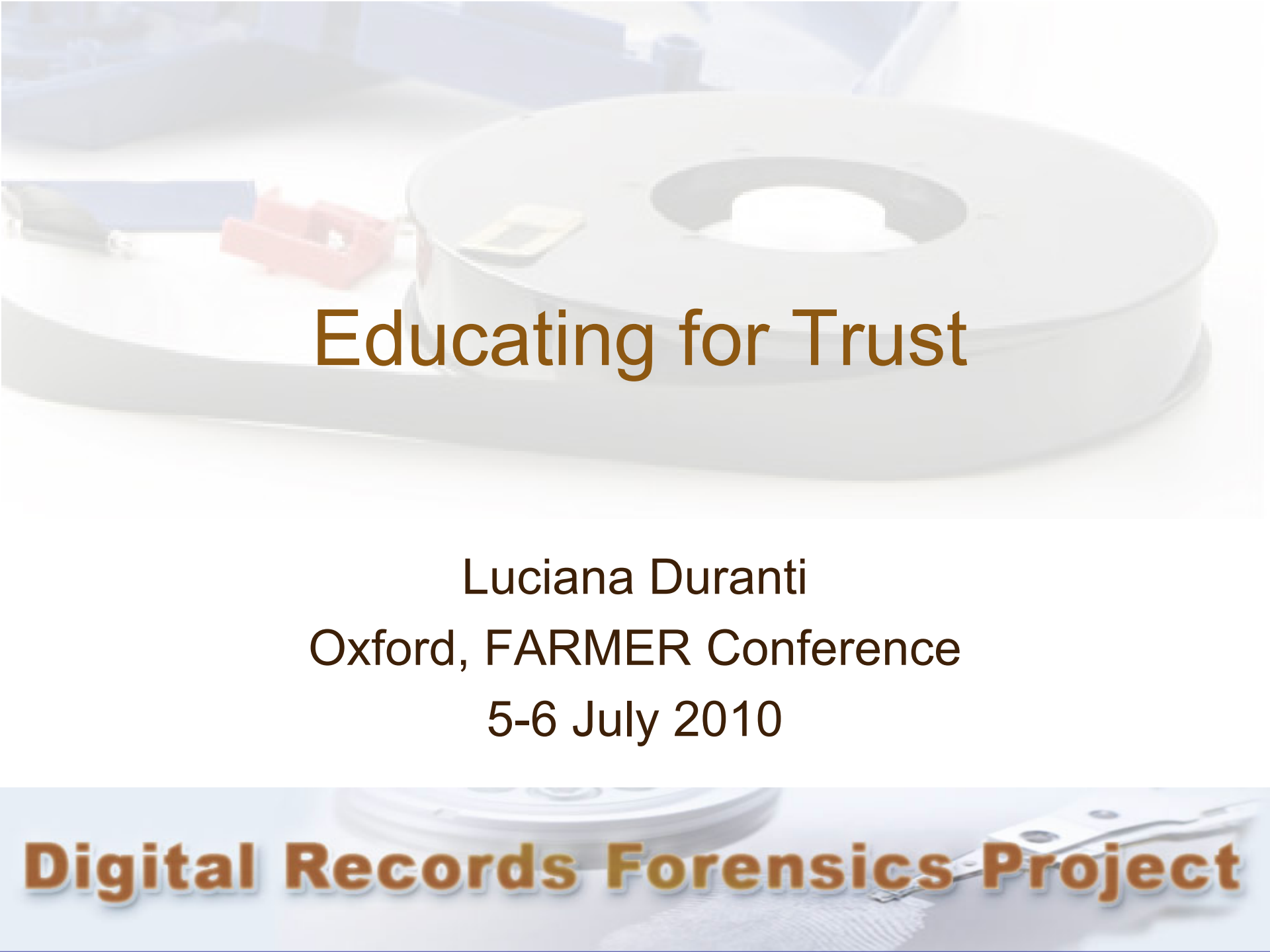


The background of the slide is a composite image. The top half features a CD-ROM in the center, with a small red plastic component and a small yellow component to its left. The bottom half shows a close-up of a fingerprint being scanned by a device, with a USB drive visible to the right.

Educating for Trust

Luciana Duranti
Oxford, FARMER Conference
5-6 July 2010

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Records Professionals as Trusted Custodians

From “Trusted Third Party Recordkeeper”:

- a neutral third party who has no reason to alter the records and no interest in allowing others to do so, and
- has the knowledge required for attesting to, and ensuring the continuing authenticity of the records

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Rules of Trust

Refer to or affect:

- those who give trust, or *trustors*
- those who receive trust, or *trustees*

In the archival professional context:

- Records creators and society: *trustors*
- Records professionals: *trustees*

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The Bond of Trust: Elements

- *Reputation*: resulting from an evaluation of the trustee's past actions and conduct
- *Performance*: the relationship between the trustee's present actions and the conduct required to fulfill current responsibilities as specified by the truster
- *Confidence*: an assurance of expectation of action and conduct the truster has in the trustee
- *Competence*: the knowledge, skills, talents, and traits required to be able to perform a task to any given standard

Competence

The most critical element for trust:

- without it, the trustee would not have been placed in a trust-relationship, being incapable of fulfilling the related responsibilities
- without it, reputation, performance and confidence would not come into play
- it underpins all elements of trust
- it is in large part provided by education

Education

What education is required of a trustee is based on *what performance* is expected

Today, the performance expected of records professionals is determined by the new *responsibilities* entrusted to them by a society based on a digital economy

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New Responsibilities

- Assess records systems' design for transparency and accountability
- Determine the authenticity of records on the basis of circumstantial and environmental evidence
- Extract records from hardware and systems often obsolete, and move them into trusted storage
- Reproduce records authentically for long term preservation
- Document changes to records to meet quality assurance requirements

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New Responsibilities (cont.)

- Establish forensic readiness to meet the needs of e-discovery
- Keep trustworthy evidence before, during and after a trial
- Adopt long term preservation activities that would not interfere with the application of the hearsay exceptions
- In the course of the processes of creation, management, acquisition and preservation, protect the rights of all parties involved

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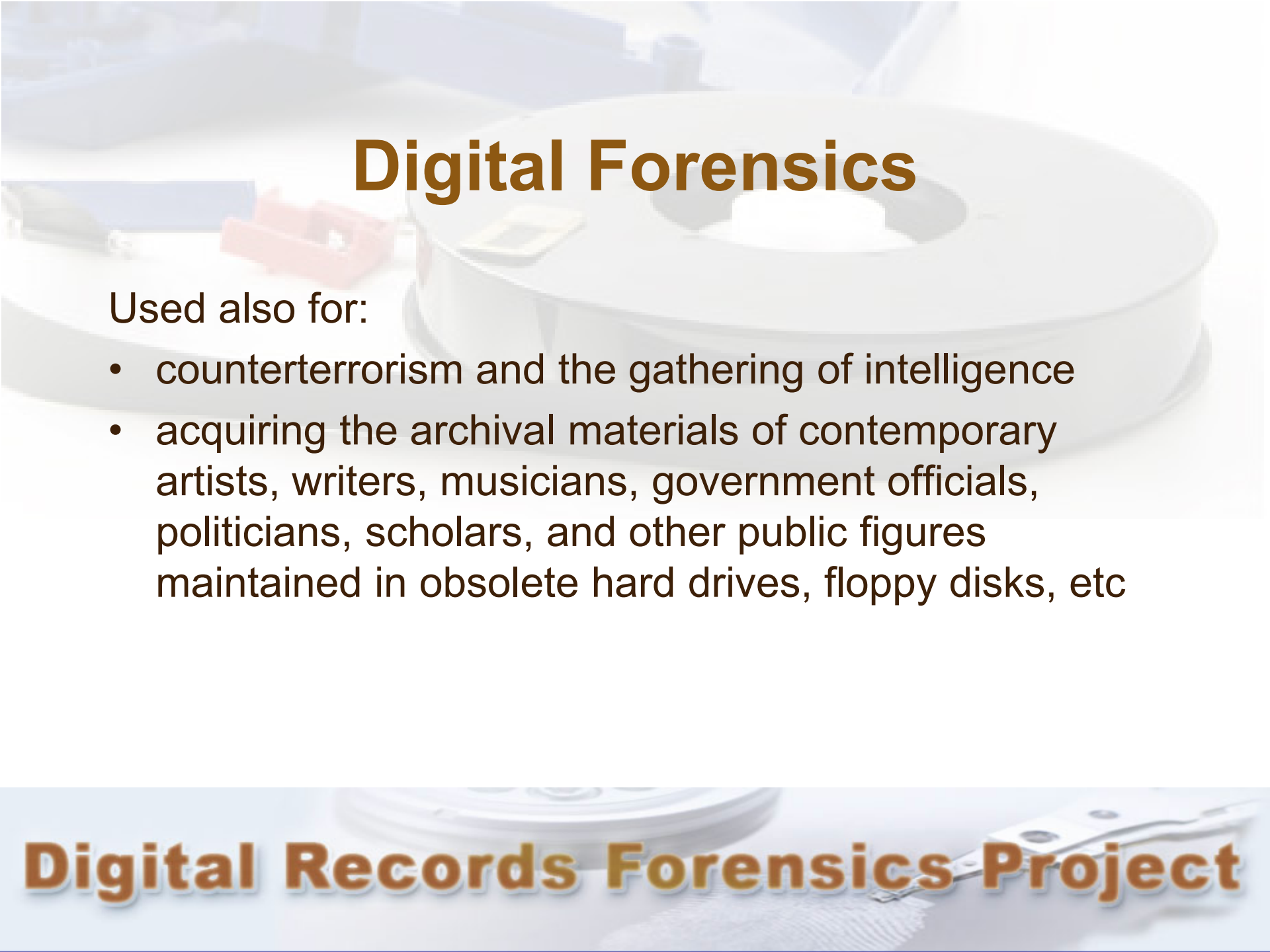
Building Alliances

Purpose: foster the development of new knowledge that can support the role of trusted keepers of the authentic record of our times

Example of a new alliance: Digital Forensics, an applied field originating in law enforcement, security, and national defence

Concerned with: discovering, extracting, authenticating, and analyzing data in digital formats to the standard of admissibility in a legal setting

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Digital Forensics

Used also for:

- counterterrorism and the gathering of intelligence
- acquiring the archival materials of contemporary artists, writers, musicians, government officials, politicians, scholars, and other public figures maintained in obsolete hard drives, floppy disks, etc

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Examples of Uses

Adoption of tools and techniques devised for forensic purposes:

- British Library's Digital Lives Project at <http://www.bl.uk/digital-lives/>
- Oxford's Bodleian Library's futureArch project at <http://futurearchives.blogspot.com/>

Adoption of theory and methods:

- Computer Forensics and Born-Digital Content in Digital Heritage Collections Project at <http://mith.info/forensics/>
- Digital Records Forensics at www.digitalrecordsforensics.org

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Digital Records Forensics (DRF)

Goal: to develop new knowledge both by research and by bringing the research findings, as well as selected areas of knowledge of digital forensics, into the classroom, and letting this interaction produce new concepts, methods and practices

It makes a connection between diplomatics, the first forensic science in the western world (but second to Jianbian, developed in China centuries earlier), and digital forensics

It takes the diplomatics concepts developed by InterPARES and compares them to the corresponding concepts in digital forensics

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Theoretical Findings

- the diplomatic concept of **record** is much more sophisticated than the forensic one and would certainly enrich the forensic body of theory
- the forensic concept of **trustworthiness** lacks a theoretical distinction between reliability, authenticity, accuracy and authentication, but is much more nuanced when it comes to its intellectual frameworks for authenticity, authentication and integrity

Intellectual Framework for Integrity

Digital forensics differentiates

- **data** integrity
- **copy** integrity
- **computer** integrity and
- **system** integrity

Assesses them on the basis of principles, such as those of **non interference** and **identifiable interference**, and of **repeatability**, **verifiability**, **objectivity** and **transparency**

Applies the framework to processes of records identification, acquisition, characterization, reproduction and migration

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Intellectual Framework for Authentication

- Relationship between authenticity and **chain of continuity**, or of **legitimate custody**, based on a lack of trusted technological means of authentication
- Distinction between a **copy** and an **image**, which ensures that we do not infringe rights to privacy and copyright when acquiring archival material
- Applied to a tight, detailed, and rigorous workflow from extraction of records from the systems and/or hardware in which they reside to their storage in a trusted repository

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Other DRF Activities

- Conducted interviews with judges, lawyers, court clerks, records managers, digital forensics practitioners and academics, and law enforcement representatives
- Built an interdisciplinary bibliographic database, a statutes database, a case law registry, and a terminological database that allows for a comparison of terms and concepts
- Built models of the forensics processes
- Tested these as educational instruments at UBC, in the Archival programs, and in the Faculty of Law, at the University of Washington Information Assurance and Cybersecurity program, and in the Computer Forensics and Identification Divisions of the Vancouver Police Department

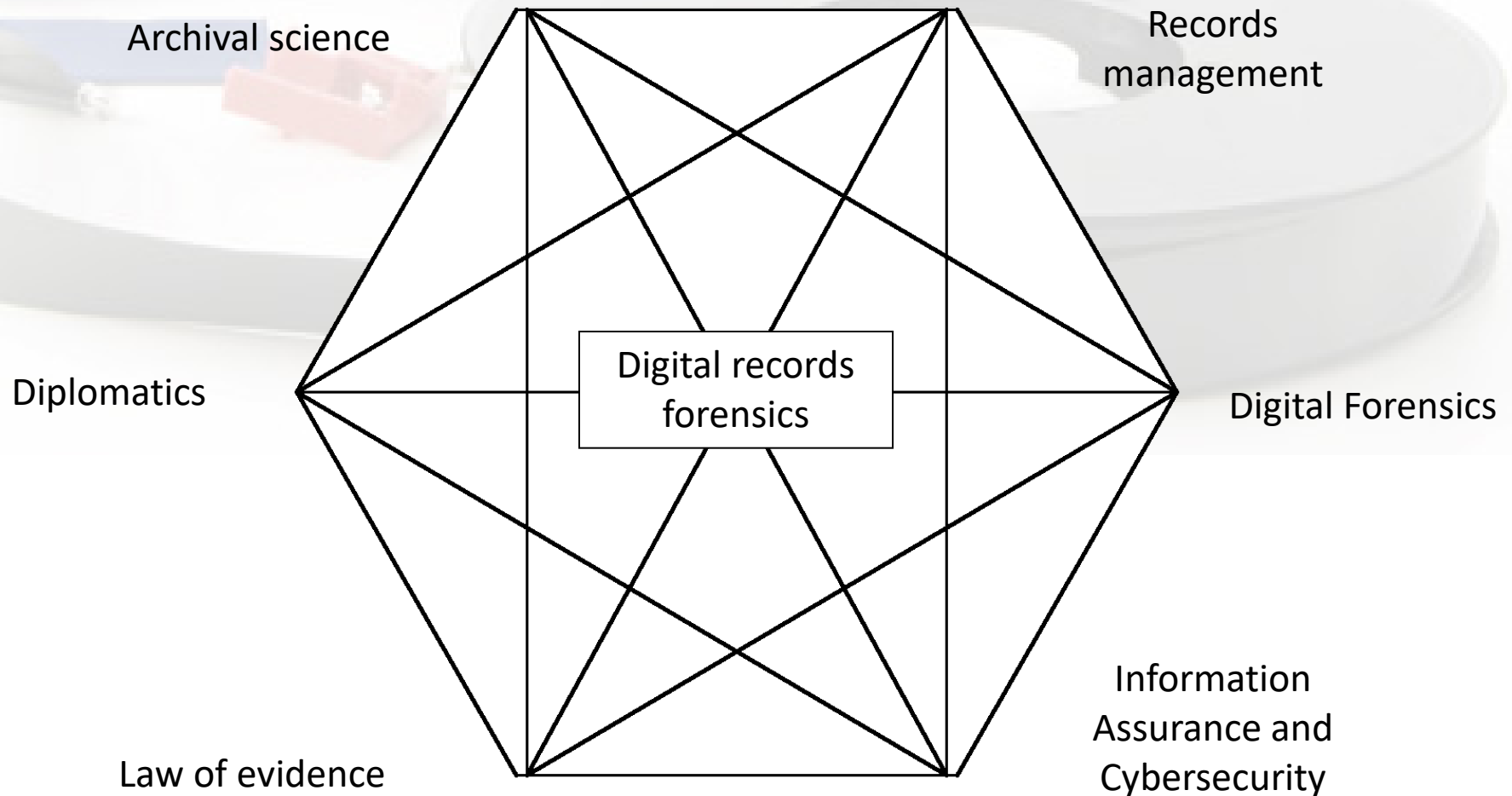
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Planned Outcomes

- a new course imparting the interdisciplinary knowledge developed
- a records forensics stream within the archival program, comprising a set of courses aimed at providing competence in the creation, keeping and preservation of authentic digital records by combining concepts, methods and practices from the following disciplines

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Conclusion

There is no doubt that the need to support our role of *trustees* with the proper competence requires looking beyond one's backyard and team up with the most improbable fields to educate records professionals for trust:
Digital Forensics is just one of those

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