

Análise Forense de Documentos Digitais

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Organização

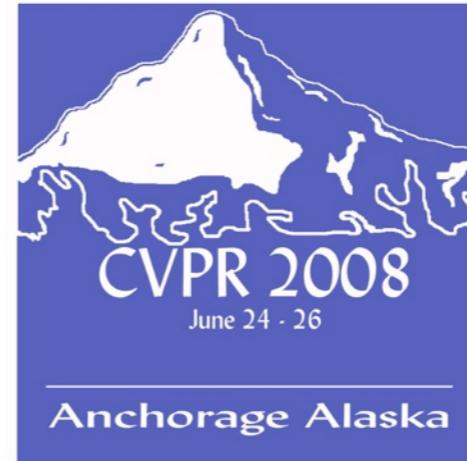
Avisos

► Aulas

- Slides em Inglês
- Apresentados previamente no IEEE CVPR
Workshop on Vision of the Unseen (WVU),
2008, Anchorage, Alaska

Organização

- ▶ Mascaramento de Informações (Information Hiding)
- ▶ Esteganografia & Esteganálise (Steganography & Steganalysis)



Information Hiding: types and applications

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Summary

- ▶ Introduction
- ▶ Terminology
- ▶ Historical remarks
- ▶ Social Impacts
- ▶ Scientific and commercial applications

Introduction

Introduction

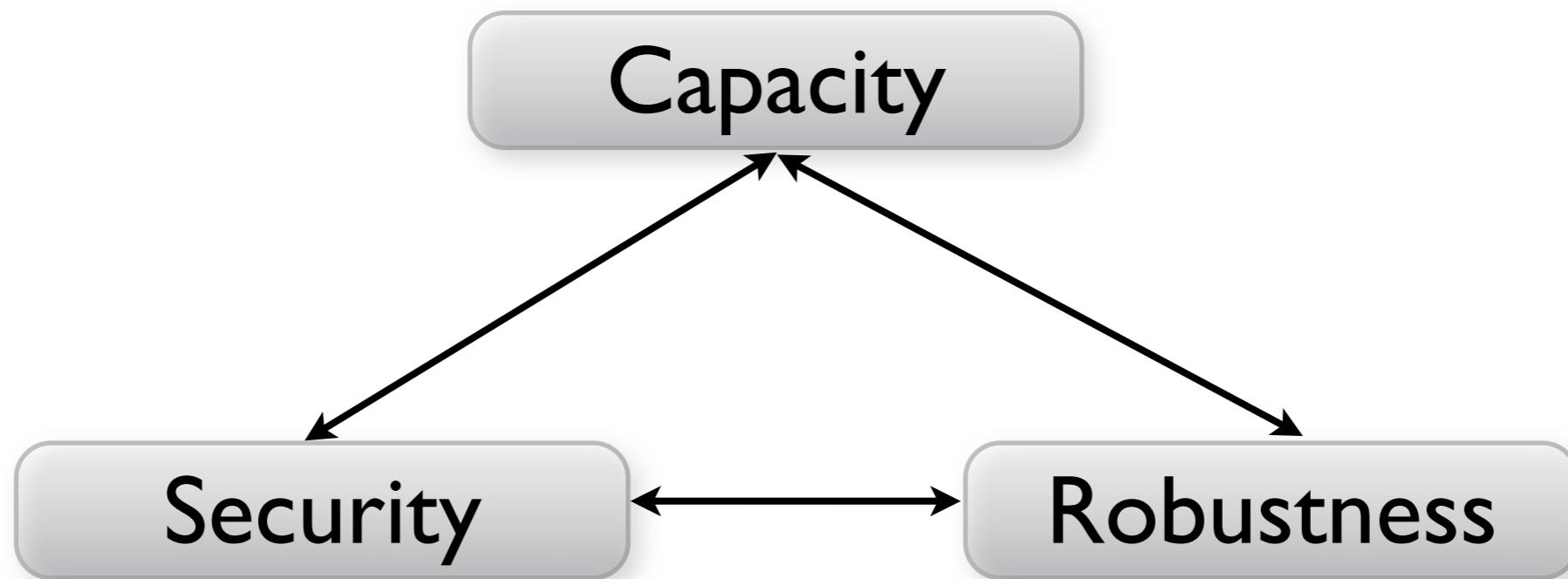
- ▶ What is **Information Hiding?**
- ▶ Common use:
 - Captioning
 - Time-stamping & Tamper-proofing
 - Watermarking
 - Communications

Terminology

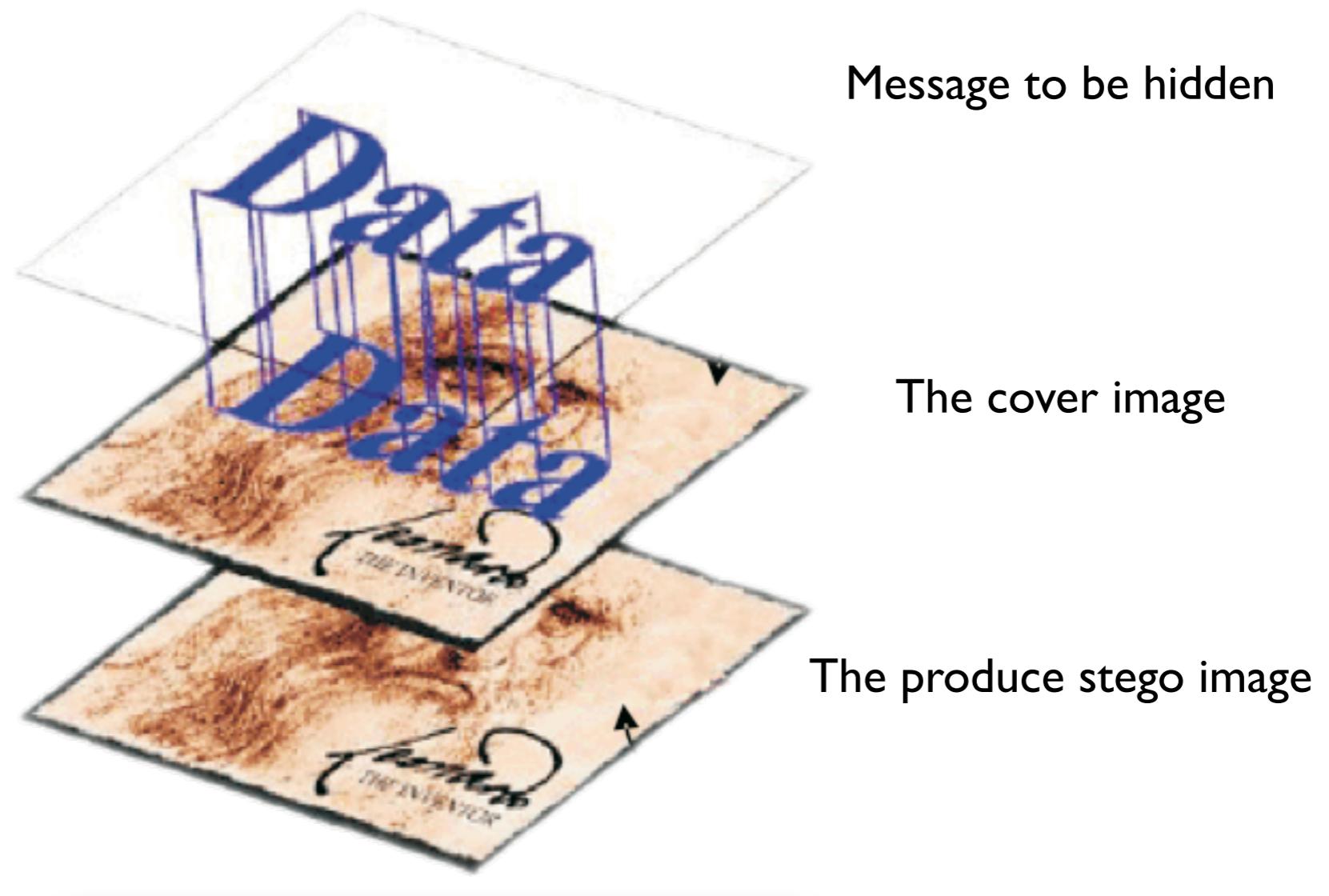
Terminology

- ▶ Information Hiding
- ▶ Cover object
- ▶ Stego object
- ▶ Stego key
- ▶ Attack

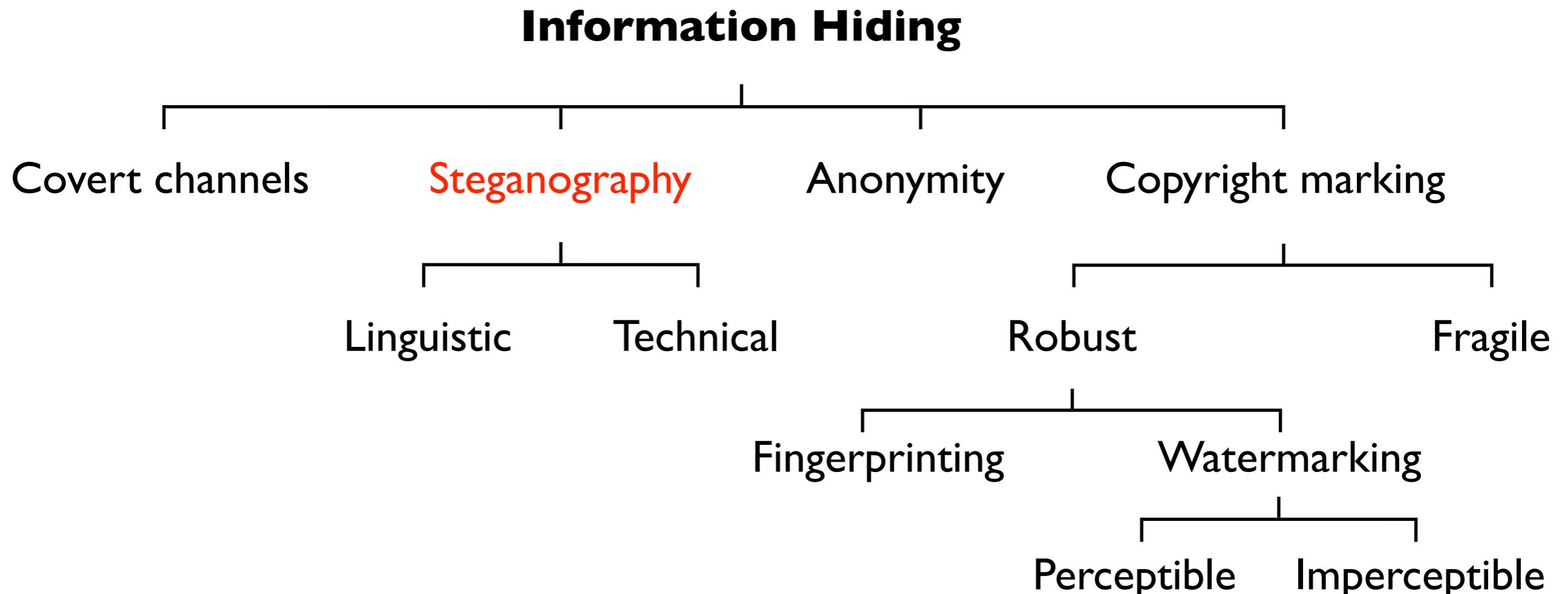
Terminology



Terminology



Terminology



Information Hiding hierarchy

Historical Remarks

Historical remarks

- ▶ Harpagus and the hare
- ▶ Histaieus and his slave
- ▶ Demeratus and the wax tablets
- ▶ Drawings concealing information

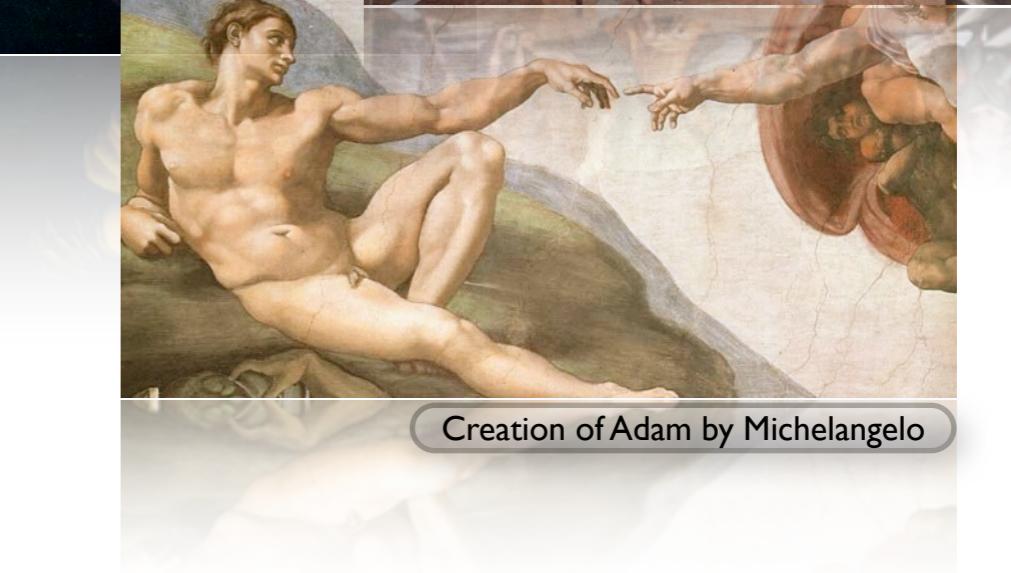
Mona Lisa by Da Vinci



Expulsion of Heliodorus from the Temple by Raphael



Creation of Adam by Michelangelo



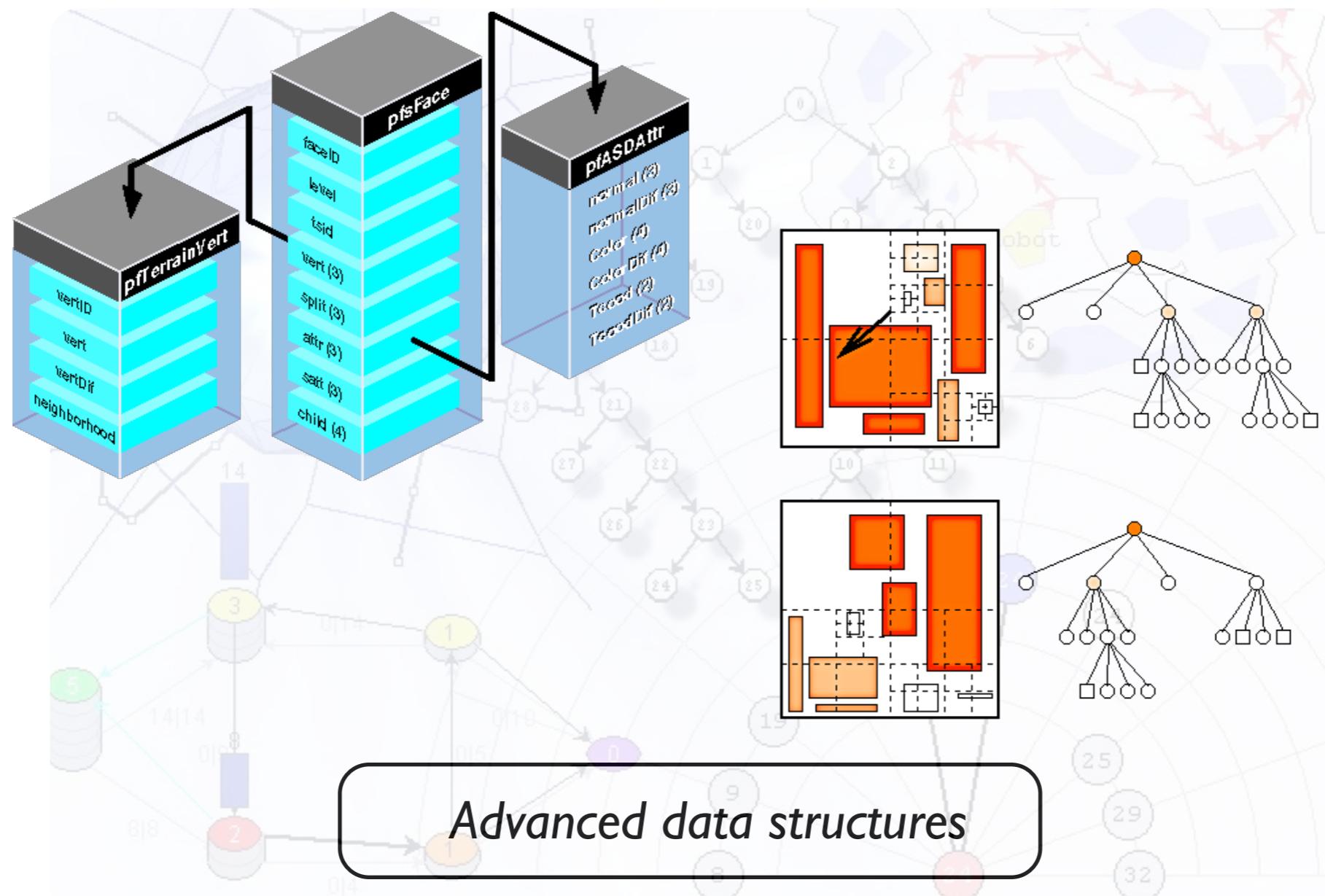
Historical remarks

- ▶ Sympathetic inks
- ▶ Micro-dots technology
- ▶ Null-cyphers
- ▶ Hypertonnomachia Poliphili

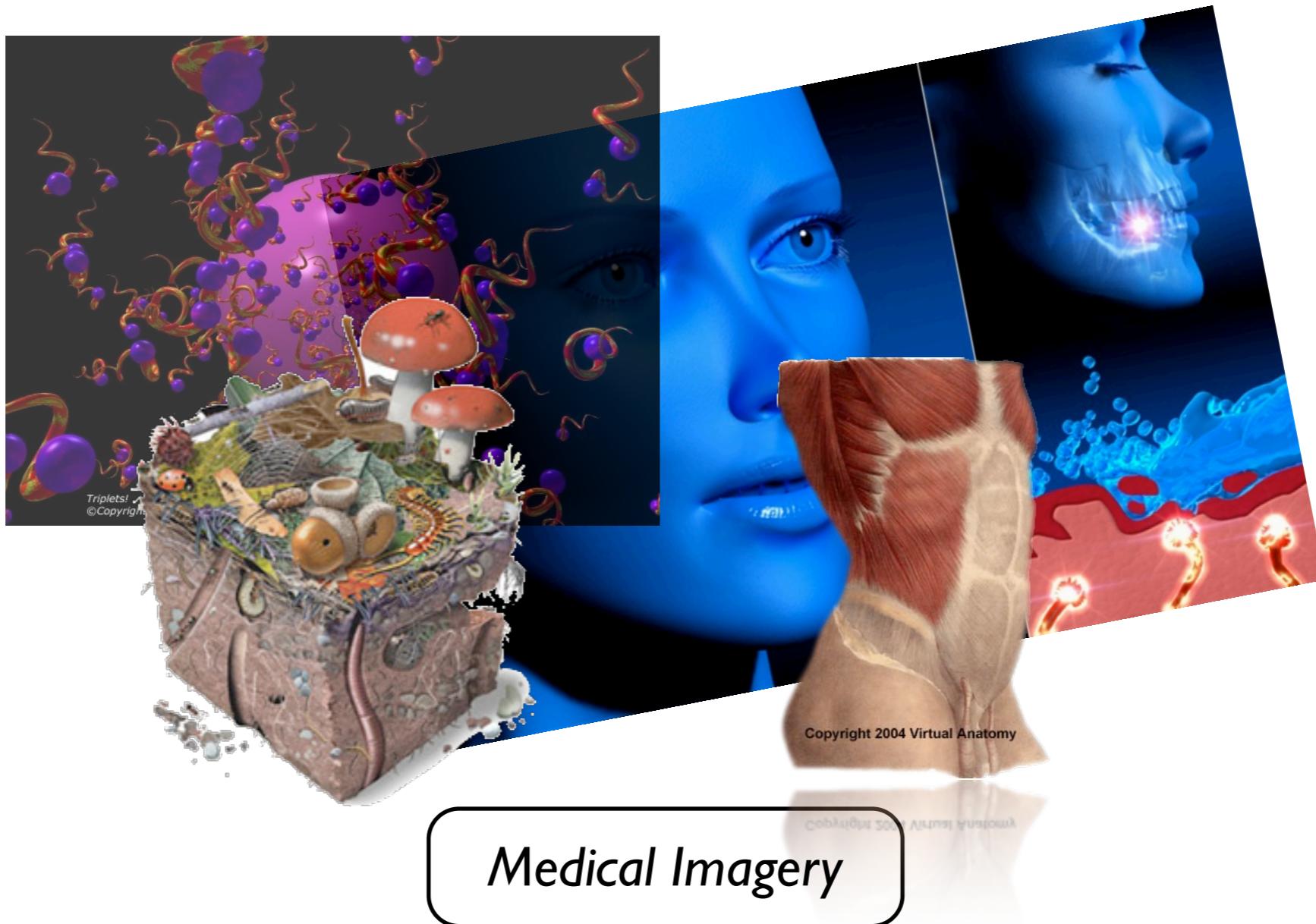


Applications

Scientific and commercial applications



Scientific and commercial applications



Scientific and commercial applications

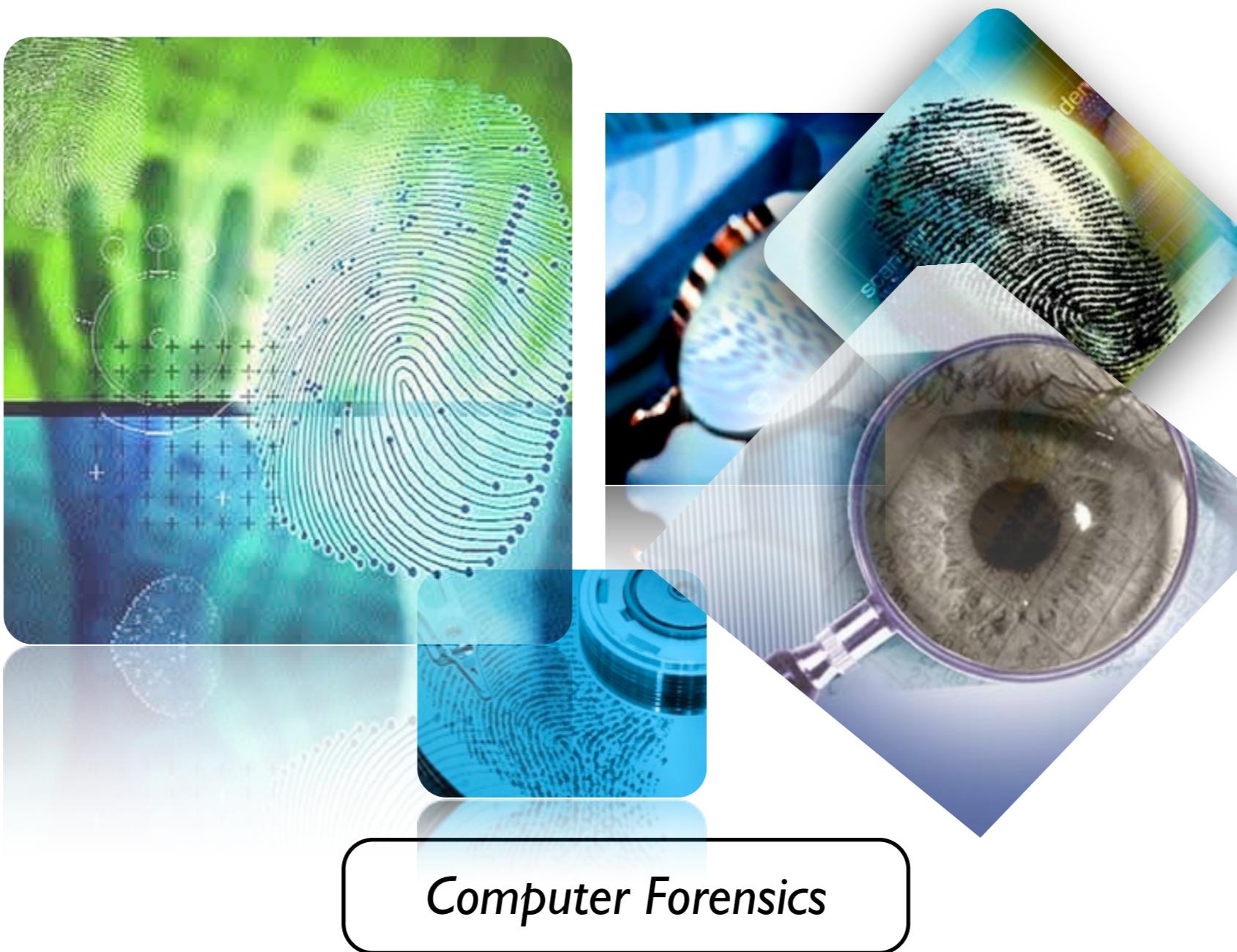


Scientific and commercial applications



Military agencies

Scientific and commercial applications



Computer Forensics

Scientific and commercial applications



Document tracking and authentication

Scientific and commercial applications



People communication

Scientific and commercial applications



Transit radar systems

Obrigado!

