

Preface

This thesis is about protection of data that have to be made available to possibly dishonest users. Data must be protected while keeping its usability. Such protection must be imperceptible, so as not to disrupt correct use of data, and strong against unauthorized uses. The study is divided regarding the two kinds of data whose transparent (imperceptible) protection has been addressed: multimedia content and statistical microdata.

In electronic commerce of multimedia content, merchants sell data to untrusted buyers that may redistribute it. In this respect, intellectual property rights of content providers must be ensured. Different watermarking and fingerprinting schemes are presented focusing on digital images.

Rather often, multimedia content are published in untrusted sites where they may suffer malicious alterations. Invertible watermarking has been studied to provide transparent lossless authentication and integrity to digital images.

When statistical files containing information about individual entities are released, privacy is a major concern. Such files must be masked so that data stay statistically useful but no information about individuals can be inferred. A proposal to enhance the best-performing masking methods is presented in this thesis.

