学术探讨

基于病毒思想的英文文本数字水印算法研究

周海燕 胡峰松 陈灿

湖南大学 计算机与通信学院

摘要   文本数字水印作为版权保护的一种手段得到了越来越多的重视。而目前文本数字水印算法基本上都存在一个鲁棒性不强的缺点。本文提出一个基于病毒思想的英文文本数字水印算法，该算法基本思想是把整个英文文本的字符以某些字母为界划分成若干小段（元素），再把这些元素按规则归类成若干个集合，然后在每一个集合中分别嵌入一个水印信息片。检测水印的时候，只要这个集合的某个元素中的水印信息没被破坏，那么这个集合嵌入的水印信息片就可以被提取出来。由于该算法完全可以在纯TXT文本上做，所以格式攻击对其是无效的。于是从理论上讲，该算法的鲁棒性能得到良好的保证。实验证明：该算法的鲁棒性确实能达到理论上的预期效果！

关键词   分类   文本数字水印   病毒   划分

分类号

An English text digital watermarking algorithm based on the idea of virus

Abstract

  It becomes more and more attractive to protect copyrights by text digital watermarking. But the robustness of text digital watermarking algorithms is very weak in a great measure at presently. This paper presents a novel English text digital watermarking algorithm based on the idea of virus. The basic idea of this algorithm lies on dividing an English text into various items according to some letters, then sorting these items into several aggregates, at last an information piece can be inserted into each aggregates. The information piece inserted into an aggregate can be extracted as long as the items of the aggregate are not destroyed entirely. Attacks based on format are invalidated because this algorithm can be executed in TXT files, thereupon the robustness of this algorithm can be ensured very well theoretically. Actually, the splendid performance in robustness of the algorithm is proved by experiments.

Key words   Sort   Text Digital Watermarking   Virus   Division

DOI:

通讯作者 周海燕   midweek@163.com

扩 展 功 能

本文信息

- Supporting info
- PDF(0KB)
- [HTML全文](0KB)
- 参考文献

服务与反馈

- 把本文推荐给朋友
- 加入我的书架
- 加入引用管理器
- 复制索引
- Email Alert
- 文章反馈
- 浏览反馈信息

相关信息

- 本刊中 包含"分类"的 相关文章
- 本文作者相关文章
- 周海燕 胡峰松 陈灿