

Chapter One: Introduction

1.1 Purpose of the study

The main purpose of the study is to provide an accurate description of how information is stored and retrieved by users of the bittorrent protocol. The bittorrent file distribution protocol is a method developed by Bram Cohen in 2001 which allows networked clients to share data over a peer-to-peer network in an efficient and robust manner. The study examines both the online resources available to bittorrent users and the information seeking behaviour of the users themselves. It will also examine how users interact with these websites through creating metadata that relates to the material they wish to share.

1.2 Justification of the study

The use of bittorrent as a means of distributing online material has grown dramatically since it was first introduced. A recent report estimated that at the end of 2004, bittorrent accounted for almost 30% of all internet traffic and around 50% of total peer-to-peer network traffic (Cachelogic 2005). Media attention has focused largely on the use of bittorrent in the distribution of pirated material, while academic research has been primarily in the technical performance of the protocol itself. This study does not ignore these aspects but focuses primarily on the way in which bittorrent users contribute information to online sources and how they retrieve it.

There have been a small number of studies conducted of user behaviour within other peer-to-peer networks but none at present exist that specifically deal with bittorrent. In this manner, the study is an exploratory look at users of bittorrent – a system that has several distinguishing characteristics that means it operates much differently than other peer-to-peer networks. The study is however, primarily a descriptive examination of online information

retrieval and metadata-creation within the context of the bittorrent community. Building on the existing research in these areas, this study addresses their relevance to the developing application of a new information and communication technology.

1.3 Research objectives

- 1 To document and review the current methods in place to locate and retrieve bittorrent material.
- 2 To identify metadata employed by bittorrent users in the process of identifying and retrieving bittorrent material.
- 3 Evaluate how successfully the information retrieval needs of bittorrent users are fulfilled at the present time.

1.4 Dissertation structure

Chapter two consists of a brief explanation of how bittorrent works and reviews the literature that is relevant to this study. Chapter three describes the different methods used in this study, including the reasons why they were chosen and details of their application. The results of these methods are shown in the form of frequency tables and graphs in chapter four. Chapter five discusses what can be reasonably deduced from analysis of these results. Finally, the conclusions in chapter six sum up how each of the initial objectives was met.

There are also four appendices located at the end of this dissertation. The first appendix is a glossary of terms that are used in relation to the bittorrent protocol or and by its community. A final copy of the distributed questionnaire is located in appendix two. Appendix three contains the full list of open-ended responses that were received from answers to the questionnaire. Finally appendix four contains further analysis of some of the results from chapter four, where the data has been cross-tabulated.