Study unit 1

Introduction

Overview

In this study unit you will be introduced to the global information networks, generally, and the Internet in particular. You will determine who the main players are in this context.

Learning outcomes

After completion of this study unit you will be able to —
❏ understand the basic technical functioning of the Internet
❏ identify the main players in the Internet context

Discussion

The Internet (sometimes called the 'Information Super Highway', or the 'Global Information Infrastructure') simply consists of a cooperative interconnection of computer networks. First created in 1969 by the United States Department of Defence, it has grown into a global web of computer networks which allows users throughout the world to exchange resources. The best known category of communication over the Internet is the World Wide Web. It allows users to search for and retrieve information stored in remote computers, often in other parts of the world, and, in some cases, to communicate back to designated sites.

World Wide Web

The core infrastructure of the Internet consists mainly of —
❏ routers (computers designed to receive and transmit data),
❏ hosts (computers which store programs and data), and
❏ pipes (telecommunication links between the routers and hosts).

infrastructure

Typically, an Internet transaction involves

'a chain of intermediate service providers. Having acquired an account with a hosting service provider, an information provider will upload web pages onto

his web site which is physically located on the host's 'server' — which is best thought of as a very large hard disk accessible from the network. Upon storage on the server the uploaded documents become instantly available to everyone with a connection to the Internet. Access to the Internet, in turn, is provided by an access provider. On the way from host to access provider to end user the transported documents pass through the infrastructure of a network provider, who, apart from providing the physical facilities to transport a signal, will also transmit and route it to the designated recipient. It is not uncommon that a single (legal) entity provides a complete range of these services' (Kamiel Koelman & Bernt Hugenholtz *Online Service Provider Liability for Copyright Infringement*, paper delivered at a Workshop on Service Provider Liability, presented by the World Intellectual Property Organization in Geneva, 9–10 December 1999 (OSP/LIA/1) at 1–2).

The main players in the Internet context, then, are —

- ❏ infrastructure and network providers,
- ❏ content providers,
- ❏ administrators,
- ❏ access providers (commonly, and perhaps less accurately, known as Internet Service Providers (ISPs), or, more accurately, as Online Service Providers (OSPs)),
- ❏ navigation providers, and
- ❏ transaction facilitators (see further Graham JH Smith *Internet Law and Regulation: A Specially Commissioned Report* (1996) 3–10).

Hosts are basically places where data are stored and which are accessible through the Internet. The types of data include computer software, and text and graphics files. The way in which the files are stored may vary, as may the relationship of the owner of a host to the data stored on it. The legal responsibility of the owner of a host will depend on the exact nature of the role she has assumed. Access providers basically provide access to the Internet to domestic and commercial users. They often provide a wide range of services, which may entail their assuming host functions. Navigation providers signpost information. So-called search engines are among the best known sites on the Internet. Content collated by navigation providers may be stored on hosts and operated by third parties.

e-commerce

globalization

E-commerce is without doubt economically the fastest developing aspect of the Internet. The Internet has changed the way in which we communicate and do business. Conventional considerations of time and place are falling away. In the virtual reality spawned by the Internet cyber contracts are entered into by cyber citizens. Distance no longer matters: parties can contract whenever they want to, and wherever they are in the world. This phenomenon can rightly be referred to as the globalization of business. Like globalization generally, the globalization of business is a trend that cannot be reversed.

The legal aspects of e-commerce are dealt with in a separate module.