Glossary

Access provider: The company that provides you with Internet access and, in some cases, an online account on their computer system.

Application: Software that lets users do relatively complex tasks, as well as create and modify documents. Common application types include word processors, spreadsheets, database managers, and presentation graphics programs.

B2B: On the Internet, B2B (business-to-business), also known as e-biz, is the exchange of products, services, or information between businesses rather than between businesses and consumers.

Bandwidth: How much stuff you can send through a connection. Usually measured in bits-per-second. A full page of English text is about 16,000 bits. A fast modem can move about 57,000 bits in one second. Full-motion full-screen video would require roughly 10,000,000 bits-per-second, depending on compression.

Broadband system: A broadband system is capable of transmitting many different signals at the same time without interfering with one another. For local

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area networks, a broadband system is one that handles multiple channels of local area network signals distributed over cable television (CATV) hardware.

Circuit-switched: A type of network connection that establishes a continuous electrical connection between calling and called users for their exclusive use until the connection is released. Ericsson PBX is a circuit-switched network.

Client/server relationship: A client application is one that resides on a user's computer but sends requests to a remote system to execute a designated procedure using arguments supplied by the user. The computer that initiates the request is the client and the computer responding to the request is the server. Many network services follow a client and server protocol.

Coase's theory: The belief that externalities can be accounted for in a production process by the consumer of an externality agreeing on a price with the producer first.

Competitive markets: Markets where firms are generally free to enter or leave a market.

Complementary products: Two goods used together by consumers, for example, bread and butter.

Consumer equilibrium: When a consumer is maximizing satisfaction from his/her purchases. This maximization will happen where the marginal utility/price ratios are equal for all goods the consumer is consuming.

Consumer surplus: This occurs when people are able to buy a good for less than they would be willing to pay. They enjoy more utility than they had to pay for.

Cross elasticity of demand: Measures the responsiveness of demand for good A to a given change in the price of good B. It is an important piece of information to a firm as it helps them predict how much the demand for their

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product will change as the price of other goods change. We calculate the cross price elasticity from the following formula: Cross price elasticity of demand = % change in demand for good A / % change in the price of good B. If the figure is greater than one, then the product is described as "elastic," or sensitive. This means that demand will change by more than the change in the price of the other good. If the figure is less than one, then the product is described as "inelastic" and the demand will change to be proportionately less than the price of the other good. The sign of the cross price elasticity gives important information. If the cross price elasticity of demand is positive, then this implies that the two goods are substitutes. A negative sign implies that they are complementary goods.

Cross-platform: Refers to software (or anything else) that will work on more that one platform (type of computer).

Cyberspace: A term used to refer to the electronic universe of information available through the Internet.

Derived demand: The amount of demand for good A depends in turn on the amount of demand for good B, for example, an increase in the demand for houses creates a direct demand for bricklayers.

Differentiated goods: Goods or services that are distinguished from rival products by, for example, packaging, advertising.

Differentiation: A strategy that offers the same goods at different prices for different sectors of the market.

Discriminating monopoly: A sole producer who divides up the market and charges different prices to different groups of customers.

Economic rent: A surplus paid to any factor of production over its supply price. Economic rent is the difference between what a factor of production is earning (its return) and what it would need to be earning to keep it in its present use. It is in other words the amount a factor is earning over and above what it could be earning in its next best alternative use (its transfer earnings).

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Elasticity of demand: The elasticity of demand indicates the responsiveness of demand to a change in a determinate, for instance, price, price of other goods, and income.

Encoding: File transfer formatting that enables encrypted, compressed, or binary files to be transferred without corruption or loss of data.

Equilibrium price: The price where the quantity supplied by firms equals the quantity demanded by households. In other words there is no shortage or surplus within the market.

Ethernet: An IEEE 802.3 standard data link layer that can operate over several different media, including fiber optic, coaxial cable, and twisted-pair cable. This 10 million-bit-per-second networking scheme is widely used on campuses because it can network a wide variety of computers; it is not proprietary, and components are widely available from many commercial sources.

Externalities: The spillover effects of production or consumption for which no payment is made. Externalities can be positive or negative. For example, all fax users gained as new users become connected (positive); and smoke from factory chimneys (negative).

Extranet: An intranet that is accessible to computers that are not physically part of a company's own private network but that is not accessible to the general public — for example, to allow vendors and business partners to access a company web site.

File server: A computer that shares its resources, such as printers and files, with other computers on the network. An example of this is a Novell NetWare Server that shares its disk space with a workstation that does not have a disk drive of its own.

Imperfect competition: Covers market structures between perfect competition and monopoly, that is, an industry with barriers to entry and differentiated products.

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Information technology: Includes matters concerned with the furtherance of computer science and technology, design, development, installation, and implementation of information systems and applications.

Internet: The Internet (note the capital I) is the largest Internet in the world. It is a three-level hierarchy composed of backbone networks (for example, NSFNET, MILNET), mid-level networks, and stub networks. The Internet is a multiprotocol internet.

IP: Internet Protocol is the standard that allows dissimilar hosts to connect to each other through the Internet. This protocol defines the IP datagram as the basic unit of information sent over the Internet. The IP datagram consists of an IP header followed by a message.

ISO: International Organization for Standardization, the group that developed the OSI protocols.

ISP: Internet Service Provider. An institution that provides access to the Internet in some form, usually for money.

ISP: Internet Service Provider. A company that provides access to the Internet. A service provider can offer simple dial-up access, SLIP/PPP access, or a dedicated line.

LAN: Local Area Network. A network of directly connected machines (located in close proximity) providing high-speed communication over physical media such as fiber optics, coaxial cable, or twisted pair wiring.

Liquidity: Liquidity refers to the ease with which an asset such as bank deposits or property can be turned into money. Liquid assets are ones that can quickly be converted to cash.

Marginal revenue: The income received from the sale of one extra unit

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Market failure: Market failure occurs when the workings of the price mechanism are imperfect and result in an inefficient or grossly unfair allocation of resources from the perspective of society. Examples include the education and defense markets.

Market segment: A particular group of consumers within a market.

Mobile commerce: M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as cellular telephones and personal digital assistants (PDAs).

Monopoly: In theory an industry where one firm produces the entire output of a market. In practice, in the United Kingdom, any one firm that has 25% of a market is considered to have monopoly control.

Monopsony: A market where there is only a single buyer of a good.

Native: Software that's written specifically to run on a particular processor. For example, a program optimized for a 68K processor runs in native mode on a Quadra, but it runs in emulation mode (which is slower on a Power PC-based Power Mac). Also the file format in which an application normally saves it documents. The native format is generally readable only by that application (other programs can sometimes translate it using filters).

Network: In general a group of computers set up to communicate with one another. Your network can be a small system that's physically connected by cables (a LAN), or you can connect separate networks together to form larger networks (called WANs). The Internet, for example, is made up of thousands of individual networks.

Node: A computer that is attached to a network; sometimes called a host.

Normal goods: Goods to which the general law of demand tends to apply.

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NSFNET: National Science Foundation Network. The NSFNET is a high-speed network of networks that is hierarchical in nature. At the highest level is a backbone network that spans the continental United States. Attached to that are mid-level networks, and attached to the mid-levels are campus and local networks. NSFNET also has connections out of the U.S. to Canada, Mexico, Europe, and the Pacific Rim. The NSFNET is part of the Internet.

Oligopoly: A market dominated by a very few sellers who account for a large proportion of output.

Online: Actively connected to other computers or devices. You're online when you've logged on to a network, BBS, or online service. A device such as a printer is online when it's turned on and accessible to a computer. If you're not online, then you're off-line.

Online service: A commercial service that (for a price) provides goodies such as e-mail, discussion forums, tech support, software libraries, news, weather reports, stock prices, plane reservations, even electronic shopping malls. To access one, you need a modem. Popular online services include America Online, CompuServe, and Prodigy.

Packet-switching: Data transmission process, utilizing addressed packets, whereby a channel is occupied only for the duration of the packet transmission. SDSUnet is a packet-switching network.

Peer-to-peer: A network setup that allows every computer to both offer and access network resources, such as shared files, without requiring a centralized file server. Macintosh computers utilize this type of network setup.

Price discrimination: When the same product is sold in different markets for different prices. A firm will only be able to price discriminate where there is separation between the markets. If there is any significant leakage between the markets, the price discrimination will break down.

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Private good: A private good is one that is both rival and excludable. One person's consumption will mean that the good is not available for another person to consume it.

Protocols: When data is being transmitted between two or more devices, something needs to govern the controls that keep this data intact. A formal description of message formats and the rules two computers must follow to exchange those messages. Protocols can describe low-level details of machine-to-machine interfaces (for example, the order in which bits and bytes are sent across wire) or high-level exchanges between application programs (for example, the way in which two programs transfer a file across the Internet).

Public goods: Items that can be jointly consumed by many consumers simultaneously without any loss in quantity or quality of provision, for example, a lighthouse. Public goods are therefore goods that would not be provided in a pure free-market system. This is because they display two particular characteristics: 1. Non-rivalry - Consumption by one person does not reduce the amount available for others. 2. Non-excludability - Once the good is provided, it is impossible to stop people from consuming it even if they haven't paid. An example of this is defense. It is impossible to charge people for defense, as they consume it as the whole country is being defended at once. Also one person being defended does not stop others being defended.

Search engines: A type of software that creates indexes of databases or Internet sites based on the titles of files, key words, or the full text of files.

Skimming: A pricing policy sometimes used by companies introducing a new product. A high price is set to ensure large profits are made before the competitors are able to produce a similar product.

Subsidies: Payments to producers or consumers designed to encourage an increase in output.

Substitution effect: This occurs when a change in the relative price of a good causes the consumer to review how much they consume. For instance, if the

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price rises, then this will reduce the relative income of an individual who does not change their consumption patterns.

TCP/IP: Transmission Control Protocol/Internet Protocol. A set of protocols, resulting from ARPA efforts, used by the Internet to support services such as remote login (TELNET), file transfer (FTP), and mail (SMTP).

Total utility: The amount of satisfaction obtained by consuming units of a good.

Transaction costs: All the costs associated with buying and selling a good, for example, the cost of finding out information.

Transfer payments: Transfer payments are payments for which no good or service is exchanged. In other words, money has simply been transferred from one person in society to another. This includes things like benefits, pensions and lottery payments. A significant proportion of government expenditure is on transfer payments.

USENET: A network of newsgroups. There are thousands of newsgroups available through USENET. Each one covers a specific topic or subject area.

Vertical integration: Vertical integration is where firms at different stages of the production chain merge together.

Web browser: Also known as a Web client program, this software allows you to access and view HTML documents. Netscape, Mosaic, Lynx, WinWeb, and MacWeb are some examples of Web browsers.

Web page: A document created with HTML that is part of a group of hypertext documents or resources available on the World Wide Web.

Wide Area Network (WAN): Network spanning multiple geographic distances, usually connected by telephone lines, microwave, or satellite links.

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WWW: World Wide Web, or W3, is the hypermedia document presentation system that can be accessed over the Internet using software called a Web browser.

Zero sum game: A zero-sum game occurs when any gain made by one player is exactly balanced by losses to other players.

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