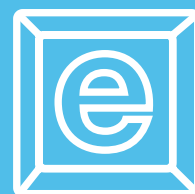




ARTHUR ANDERSEN

Technology, Media and Communications

Competing in the digital economy



Arthur Andersen – the partner for success in the new economy

“This emerging new economy represents a tectonic upheaval in our commonwealth, a social shift that reorders our lives more than mere hardware or software ever can. It has its own distinct opportunities and its own rules. Those who play by the new rules will prosper; those who ignore them will not.”

– *Wired*, September 1997

Competing in the digital economy

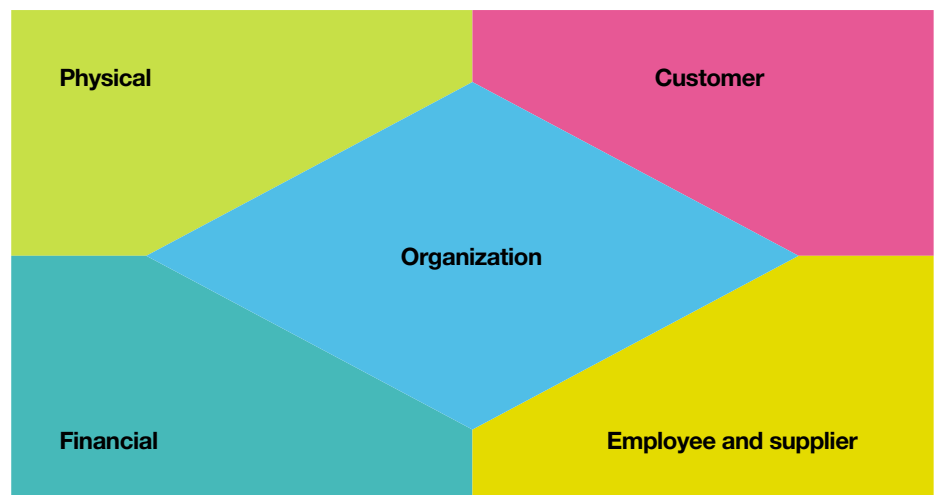
by Jolyon Barker and Tony Cooper, London

Although there is no agreed definition for the new economy, most people are aware of the key trends driving it – consolidation, globalisation, changing social attitudes and the explosive growth in communications and information technologies. From these are springing new types of business activity; new ways of doing business, new organisational structures, and new mindsets and attitudes to work. In short, it's a new way of working and a new way of living.

Cracking the value code

The technology, communications and media industries are transforming to meet the opportunities presented by the new economy. Issues particularly affecting these industries include liberalisation, convergence in network and device technologies and the growing influence of the internet.

These changes are redefining both the business and consumer marketplaces, with the consumer market often influencing changes in the business market. This thoughtpiece – the first in a series – focuses on the implications of new media competition in the consumer market. The consumer market arguably presents very significant challenges for established market participants and its size offers substantial rewards for those who get it right.

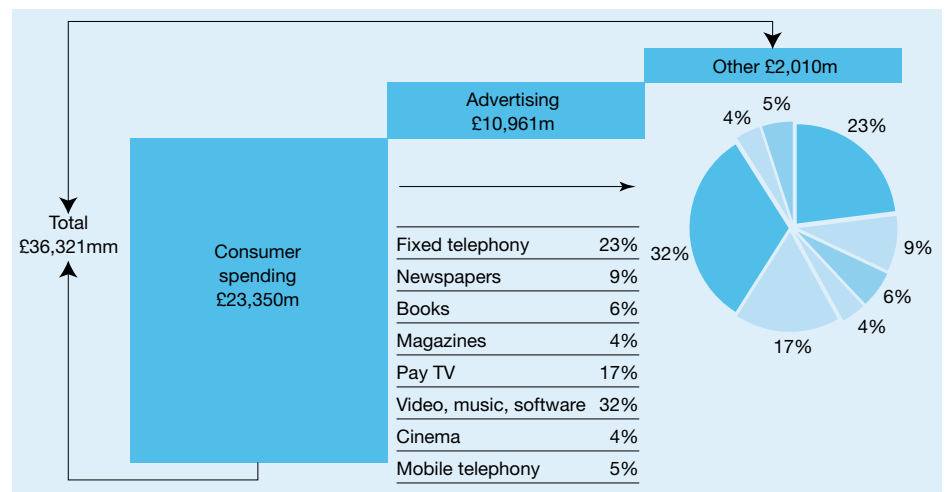


Source: 'Cracking the value code' – how successful businesses are creating wealth in the new economy, by Richard E.S. Boulton, Barry D. Libert, Steve M. Samek (Arthur Andersen).

The current market

In 1998 consumer-focused communications and media services generated revenues of over £36 billion in the UK. Approximately 65% of this came from direct consumer spending.

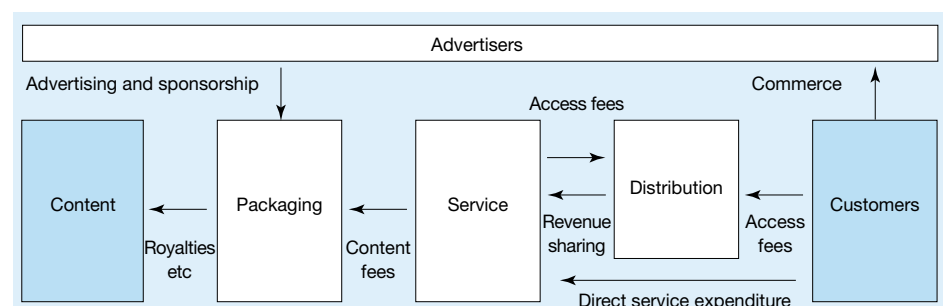
Figure 1. Sources of revenue in the UK consumer communications and media landscape, 1998



Currently this spending is directed to several discrete industries each delivering tightly defined products and services that reflect a variety of media such as books and newspapers, pay TV and mobile telephony and internet portals. Clear boundaries exist between these industries with overlap limited by technological and regulatory constraints.

As the structure of these industries is clear, so is the flow of revenues through each element of the value chain. Companies operating in the 'service' element collect revenues from end-consumers which are then distributed to other elements of the value chain. Companies operating in the 'packaging' domain derive important additional revenues from indirect sources like advertising. Within the media industries, advertising revenues are a fundamental part of the revenue model. Advertising accounts for 28% of total revenues in magazine publishing and 61% in newspapers. Within telecoms, the percentage of call revenues funded by 'advertisers' (through freephone, national call rate and local rate numbers) continues to rise.

Figure 2. The structure of the communications and media landscape



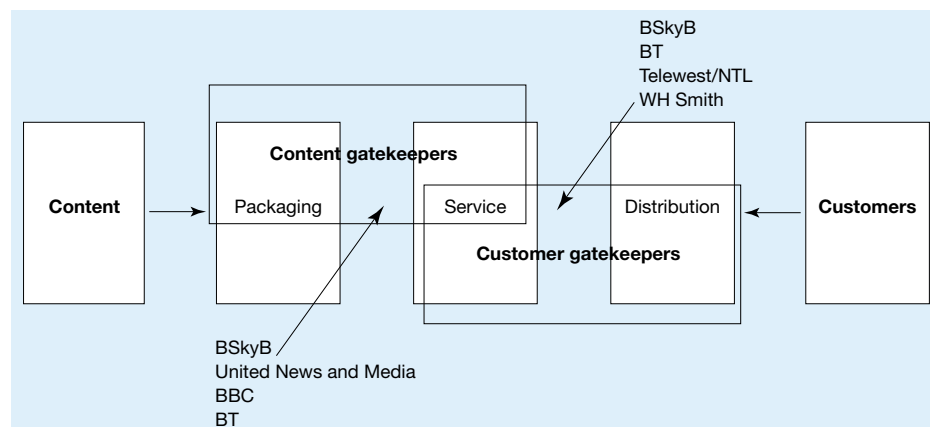
Each of the distinct market domains making up the market landscape is dominated by powerful customer and content 'gatekeepers' who determine how content and services are created, packaged, sold and delivered. This type of environment allows only a relatively narrow choice of how services are consumed. Typically, TV is real-time and broadcast communication is narrow-band, while newspapers are physical and lack customisation and immediacy. Gatekeepers also control the flow of value through the supply chain.

The pre-eminence of gatekeepers has come either through former monopoly status or, more significantly, because of the economics of the outgoing 'industrial age' where success was derived from scale and the economies it generated.

In 1998, BSkyB retained 54% of revenues flowing through the primary activities of its value chain. A substantial proportion of this was generated from 'indirect' sources – advertising and cable operators.

The liberalisation of network industries has also played a role in creating customer gatekeepers and an exclusive relationship between network ownership and customer controls. Successful positioning as a customer gatekeeper has sometimes required a backward extension into content, creating exceptionally powerful entities like BSkyB, which straddles significant portions of the value chain.

Figure 3. The controlling influence of content and customer gatekeepers on the landscape



But the established order of the communications and media landscape is under threat. Already competition in broadcasting has driven up the price of 'must have' sports rights and second generation ISPs have re-defined the revenue model for internet access through the interconnection regime and by extending into e-commerce and content.

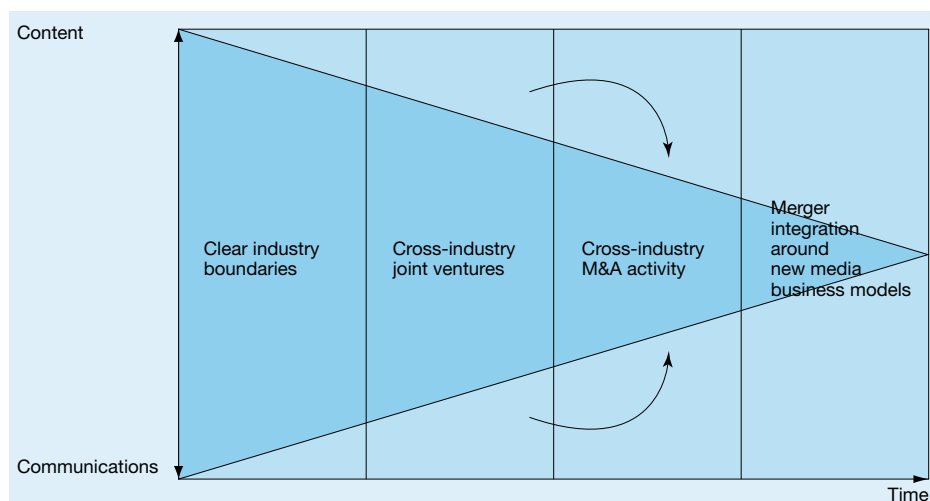
"Firms that don't re-invent their business models around the Net will be bypassed and fail. In the year 2020, we are likely to look back and see that companies fell into the categories of those that 'got it' and those that didn't."

Don Tapscott, *Creating Value in the Network Economy*, 1999

A new economy needs a new business model

The traditionally distinct market domains are converging – being pushed by the supply-side forces of regulation, technology and the internet and pulled by the demand-side forces of increasingly demanding consumer behaviour. Customer power and the instant society are changing the way they operate.

New economy trends are also influencing how communications and media services are gathering revenue – in 1998, approximately 30% came from 'indirect' sources like advertising and sponsorship.



Converging markets and different revenue sources mean that successful market participants are those that re-define their businesses through:

- capturing a larger and/or more profitable share of the market by moving across industry boundaries;
- re-defining services to unlock 'hidden' value;
- creating new business models based on new sources of value and competitive advantage;

The drivers of change

Content and customer gatekeepers have long recognised the opportunities for growth offered by crossing current industry boundaries or exploiting new technologies within their own industries. But, until now, market conditions have not been right. The balancing dynamics of both supply side 'push' and demand side 'pull' are changing this.

The technology environment

Already technology can offer networks and systems that deliver services with both the point-to-point characteristics of a communications network and the bandwidth of a broadcast network. Past constraints like cost and lack of standards are rapidly disappearing as the drive for market share, combined with regulatory pressures, increases volume and reduces costs. Accepted standards for communication and encoding of digital information have also been established.

Recent developments in WAP technology, enabling m-commerce and internet related services via mobile handsets, is another example of how the revolutionary growth in technology is creating new services and new business opportunities. Interest in WAP has exploded over the last few months with the WAP forum (of which Arthur Andersen is a member) being a key driving force behind these developments.

With agreement on standards for both communication (GPRS/WAP) and content (WML) formats, content owners are increasingly creating content that is WAP-compatible. WAP-enabled mobile 'phones for both the business community and consumers are now available.

The regulatory environment

Regulatory developments are usually a response to compelling changes in the market environment. Currently these are focused on reducing artificial barriers and the dominance of today's gatekeepers. Initiatives include unbundling access networks, completely liberalising broadcasting markets, and reviewing 'monopoly' control over 'must have' content.

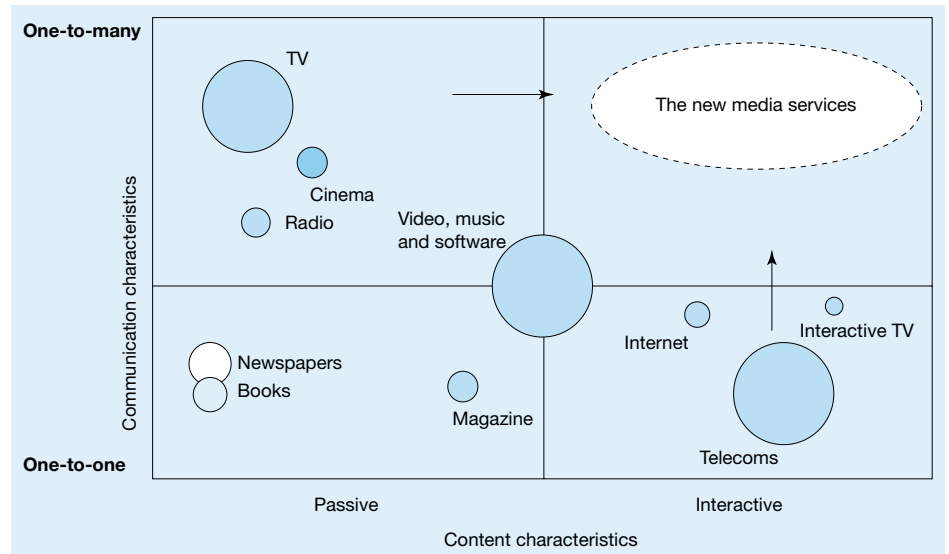
The internet and changing consumer behaviour

The internet has revolutionised the communications and media industry and allowed a new type of business to be carried out – e-business.

An easily accessible environment for innovative business ventures, e-business is a cost-effective way to avoid some of the usual obstacles of established business practices. E-business has already dramatically changed the traditional distribution channels for books, CDs and videos, and is beginning to challenge the physical nature of these products. Publishing is rapidly becoming a virtual industry. In the communications industries, the openly available IP standards are shifting the power base between incumbents and new entrants.

The future market

Figure 4. Revenue will migrate from today's discrete industries to a more convergent environment. (Size of bubble represents UK market value, 1998.)



As the communications and media industries converge, market participants will stretch boundaries currently defined by technology or delivery mechanisms and operate instead across a diverse market. Strategies and characteristics will be organised along new dimensions of focus such as communities of interest, content and context.

Consumer relationships will be at the heart of this new focus. Customers will determine what they want – and when and how they want it. Choices and service will no longer be constrained by particular access devices or network platforms.

Whilst these changes in supply and demand are significant, they are best described as an evolution rather than a revolution. Books will not disappear overnight, TV will not suddenly become completely non-linear and interactive, and broadcasters will need time to transform into internet-based infotainment portals. In many ways, this gradual change is a greater threat to the established participants than a more rapid transition. If they do not recognise the significant changes taking place, they risk erosion of their business.

Creating value in the new economy

In the new economy, market participants create value through a combination of end-user expenditure, indirect sources such as advertising, and interaction with primary and secondary business 'partners'.

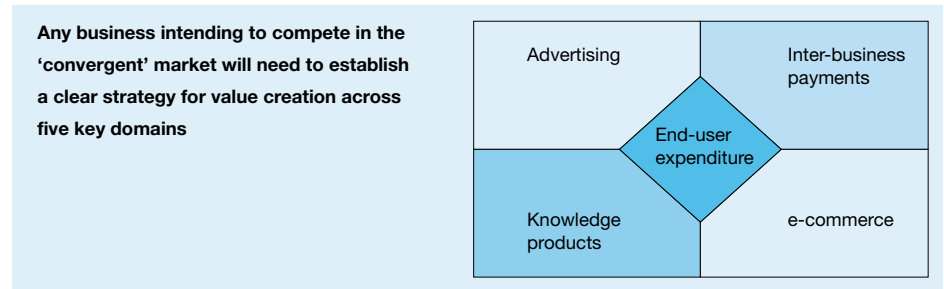
As technology allows more interactivity and information capture as well as new ways to conduct business-to-business and business-to-consumer transactions, new sources of value creation and competitive advantage are emerging. These trends will determine the successful business models of the future.

The most significant of these trends are:

- knowledge products; and
- e-commerce.

As well as creating value in themselves, these concepts will influence how value is created and extracted from existing sources.

Figure 5. Sources of value in the convergent landscape



Knowledge products

Greater connectivity and interactivity has improved the information flow between customers and suppliers and led to the creation of knowledge products. This new information can make companies more efficient by lowering costs and improving cross-selling performance. Properly packaged, this same information can be sold on to business partners to improve their own operations.

The value created by knowledge products is becoming a major competitive advantage in the new economy. Exploiting this advantage requires a fundamental re-design of operational models, skills and technology.

As an example, consider a telephone company, such as BT, which collects substantial amounts of information about the calling patterns of its customers. While this information is currently used to improve performance within the telecoms domain – managing its capacity efficiently or suggesting better packages to its customers – it has the potential to create value in a new way. For example, using this information to identify international calling patterns could be used to cross-sell travel products. A customer that calls Australia every week may be interested in a customised flight/hotel package there. Subject to regulatory approval, BT could potentially sell this customer insight on the open market to travel companies or perhaps even extend its own operations into travel resale and secure a large proportion of the overall transaction value. To succeed in either of these ventures, BT would need much greater insight about this customer than simply telephone usage. A new approach to data capture, analysis, reporting and interpretation is needed, together with new business partnerships to exploit the potential value.

As Freeserve used the interconnection regime to change the basis of competition in internet access, new entrants will leverage these new sources of value to create alternative revenue models which undermine established business practices. In the future, an internet based 'broadcaster' could use its detailed customer information to offer pay-TV packaged with customised advertising – and substantially discount its retail price. Advertisers will pay premium rates to be sure they are hitting their target audience.

Offers of free unlimited internet access from AOL and NTL clearly show how competitive pressure is challenging old business models and pricing paradigms.

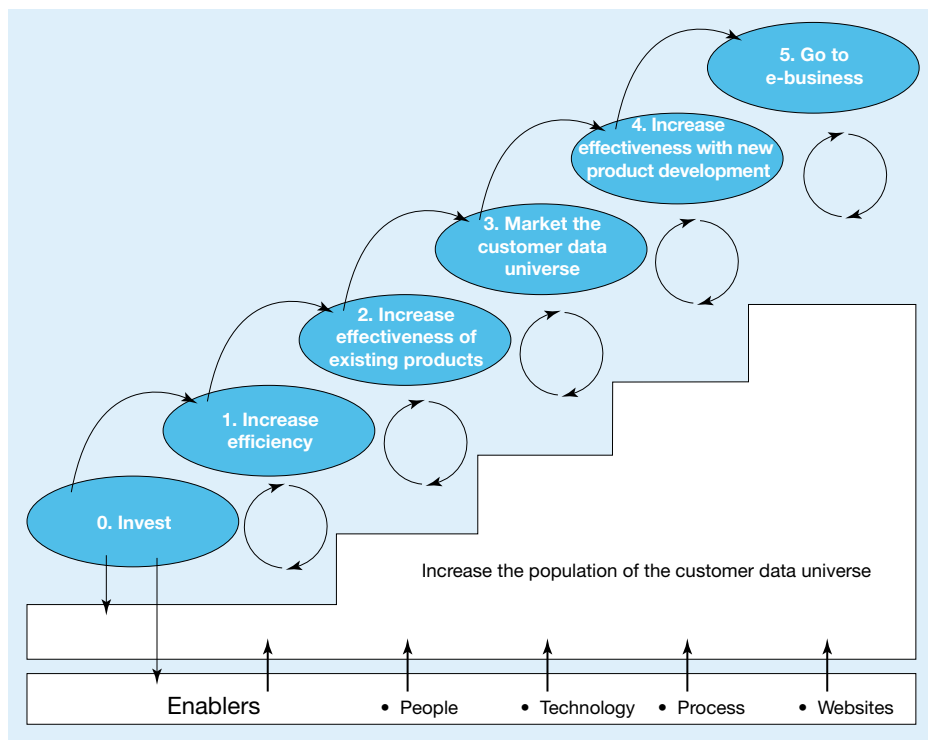
Hotmail, a free email service backed by relatively modest funding, was able to grow a subscriber base of ten million within two years. It was bought by Microsoft at the end of 1997 for a reported \$400 million, and today attracts more than 100,000 new sign-ups a day.

The transition to a business whose success is based on customer insight will be complex, expensive and time consuming for established players. They will need to quickly map out a clear approach to restructuring their people, processes and technology to exploit these opportunities.

Arthur Andersen is continuing to support media and communications companies during this change. Central to this is a six-step process delivering incremental benefits in internal efficiencies, externally marketable products and e-commerce support.

The main purpose of this process is to encourage a business to focus on its customer relationships. This allows historical product and service boundaries to be stretched to introduce new offerings which create new value for both customers and business.

Figure 6. The step-wise approach to creating a platform for greater customer insight in the convergent landscape



E-commerce

E-commerce refers to the multiple forms of commerce and trading that are supported through the use of the internet and internet-related technologies and platforms. Examples include purchasing books, music, software and groceries, the trading of stocks and shares and the on-line auctions.

Most of these e-commerce business models operate on the principle of creating an environment that combines sophisticated content and services for a large number of consumers in a user-friendly way. Vendors are able to build highly sophisticated customer information sets as well as customise richer services to individual customers. E-commerce allows a much larger customer base to be supported than traditionally possible, while costs are drastically reduced.

Success in the communications and entertainment industry depends on several key factors:

- size of audience/consumer;
- reach;
- knowledge of audience/consumer;
- quality of content; and
- quality of service.

Since e-commerce can enhance all of these factors, it represents a crucial transformation to the industry. And communications and media companies are well positioned to take advantage of this transformation.

In the future, e-commerce revenues will be derived through knowledge products and the customer relationships that are redefining the business model. New customer gatekeepers will sell multiple products and services tailored to customers needs. While transaction revenues will still partly flow to those customer gatekeepers, their roles will certainly change.

Knowledge products can generate e-commerce through various transactions. For example, the provision of financial transaction and fulfilment capabilities will allow revenue generation through either transaction clipping or direct charging respectively. Increasingly, internet-based businesses are offering these services. An example of this is the market site service provided by BT using a CommerceOne solution. In this case, the

knowledge product supplies catalogue information with revenues gathered through charging for on-line catalogue management and charging a small fee per transaction.

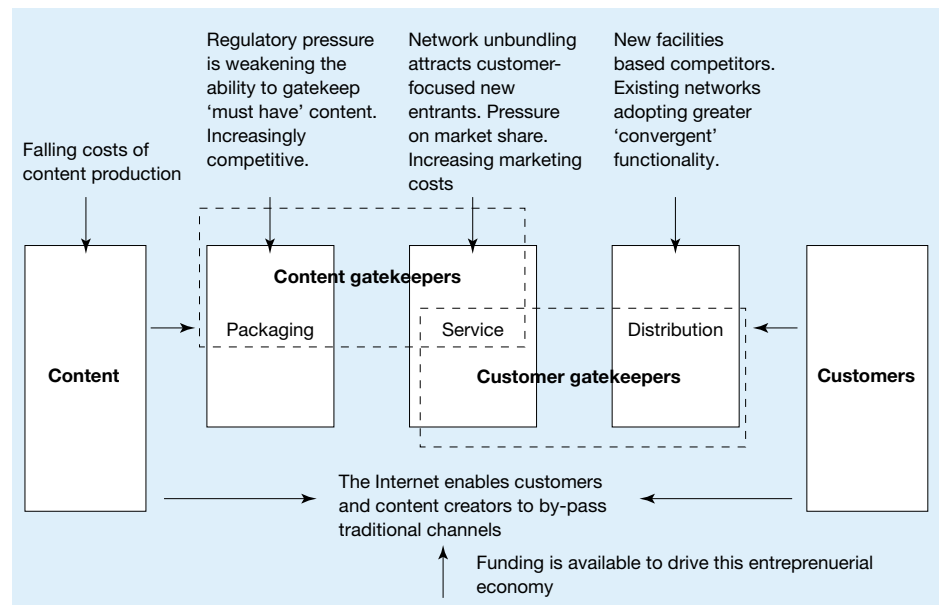
Implications for current customer and content gatekeepers

Pressure on established gatekeepers is clear, with competition both in the distribution and service provision domains eroding margins in the short term and transforming the business model in the longer term. New and incumbent competitors are chasing the same scarce content, thus increasing costs of winning new business.

Between the 1994/95 and the 1997/98 seasons, the cost of football rights to broadcasters increased by 165% in the UK.

The internet allows customers and content creators to by-pass traditional channels and interact directly, thereby lowering costs and creating new value. In this way, the internet has reduced the content gatekeepers' competitive advantage.

Figure 7. Forces disrupting the established position of content and customer gatekeepers



Gatekeepers can resist these challenges in the short term through tactical defensive measures but eventually their current basis of competitive advantage and value creation will become untenable.

The role of gatekeepers will and is yielding to the role of 'gateways' or 'portals'. These will perform a similar role but will be unable to rely on exclusivity as a primary source of competitive advantage. Constant innovation and redefinition of business models will be needed to attract and retain customers.

Brand will be critical to these new gateways. As switching between providers of utility, financial, media and retail services will be easy and without cost, 'super brands' must keep their customers through excellent service. The new economy's savvy digital consumers demand nothing less.

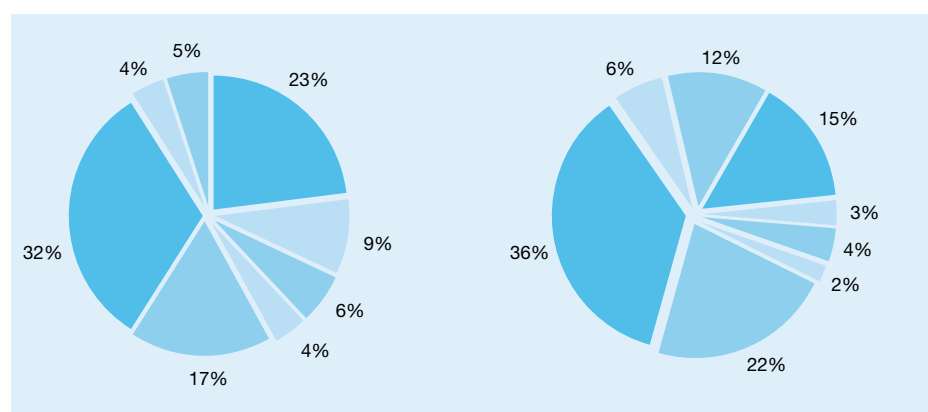
Figure 8. The evolution from gatekeeper to gateway

	Today's gatekeepers	Tomorrow's gateways
Customer	Tied to a specific network.	Network and service alignment driven by customer focused business strategy.
	Specific service focus.	
	Revenues driven by end-user spending.	Revenues driven by end-user spending, knowledge products and e-commerce
	Competitive advantage driven by exclusive rights and scale.	Competitive advantage driven by customer insight.
Content	Organised along product/service dimensions	Organised along customer and context dimensions
	Revenues driven by advertising and inter-value chain payments.	Revenues derived from same sources but driven by different models
	Competitive advantage driven by exclusivity, scale and distribution.	Competitive advantage driven by characteristics and knowledge of, and relationships with, end-user community

How these trends will shift the share of consumer spending

Trends in value creation will see significant changes in consumer spending patterns by 2005. These will primarily be driven by consumers spending more time and money on on-line based services, thereby increasing spending on videos, music, software and pay TV at the expense of more traditional media like newspapers, books and magazines. Both mobile and fixed telephony will also benefit from the on-line future although the mobile is expected to benefit at the expense of fixed telephony. These shifts are illustrated in *figure 9*.

Figure 9: Estimated distribution of consumer spending in 1998 and 2005



1998 spending

Fixed telephony	23%
Newspapers	9%
Books	6%
Magazines	4%
Pay TV	17%
Video, music, software	32%
Cinema	4%
Mobile telephony	5%

2005 spending

Fixed telephony	15%
Newspapers	3%
Books	4%
Magazines	2%
Pay TV	22%
Video, music, software	36%
Cinema	6%
Mobile telephony	12%

Becoming a customer or content gateway in the new economy

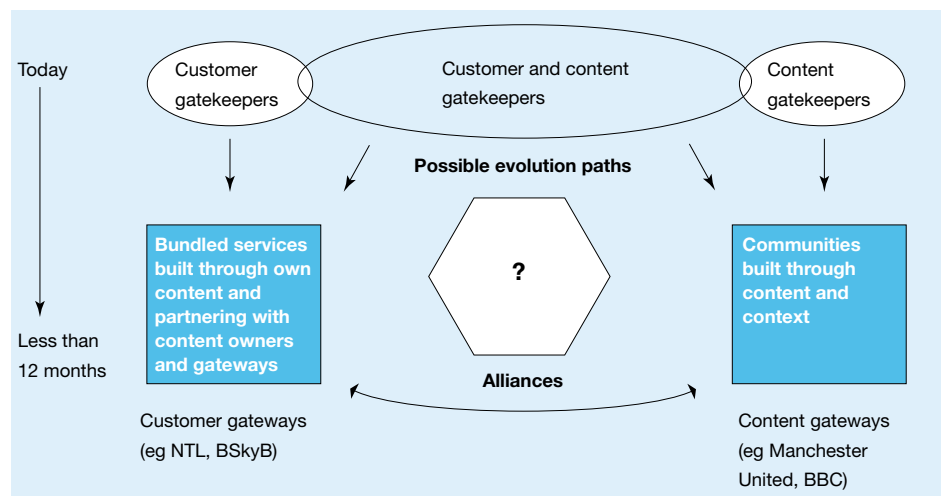
Companies must move quickly to establish themselves as leading customer or content gateways in the new economy. Customer gateways break down the barriers of their

existing product and service portfolio and become a truly customer-focused organisation, offering a much wider range of products and services than before. These new products and services will be determined through strong and interactive customer relationships. Customer gateways must recognise that broadening their portfolio will be successfully achieved through partnering in a win-win scenario. Invariably, partnerships will succeed when customer gateways partner with more content-focused companies.

Similarly, the quality, appropriateness and timeliness of content will determine the long term success of content gateways. To dominate a particular content area, companies must expand their customer base and use customer knowledge to continually refine their content. Expanding the customer base will require partnering with appropriate customer gateways to establish a mutually beneficial relationship.

As companies are polarised between these two positions, those caught in the middle will lack the focus to successfully compete (see *figure 10*).

Figure 10. The evolution of competitive positions



Is your business prepared for life in the digital networked economy?

Can you answer the following questions?

1. Can you clearly articulate your target market in terms of consumers, context and content? This will determine your key business partners, the rules of engagement and likely sources of competitive advantage.
2. Do you understand the potential sources of value and competitive advantage in this market and how to create a business model to exploit them?
3. Are you re-shaping your business to create a platform for greater customer insight, or have you prepared a strategy to do so?
4. Are you aggressively re-shaping your business to lead or participate in e-business communities?

How Arthur Andersen can help you

As market integrators, Arthur Andersen is partnering with its clients to address some of the fundamental issues of doing business successfully in the digital networked economy. These include:

- commercial models;
- value dynamics;
- customer solutions;
- content management;
- e/m-commerce; and
- organisational cultural change.

Contacts

If you require further information or you would like to discuss your requirements and how we might assist you, please contact:

Jolyon Barker	+44 020 7438 3176	E-mail: jolyon.barker@uk.arthurandersen.com
Tony Cooper	+44 020 7546 9824	E-mail: tony.cooper@uk.arthurandersen.com
Ed Shedd	+44 020 7438 5826	E-mail: ed.shedd@uk.arthurandersen.com
Nick Owen	+44 020 7438 3058	E-mail: nick.owen@uk.arthurandersen.com

Assurance

We provide assurances to management, corporate directors, investors, lenders and others. These include assurances on the reliability of financial and non-financial information, business processes and controls, regulatory compliance, and information used in strategic transactions.

eBusiness

We help clients focus on the business transformation required by eBusiness in strategy, customer interaction, business models and their entire business operation.

Outsourcing

We design, implement and operate certain finance and accounting business processes to enable clients to sharpen their strategic business focus, while improving the performance of these essential but non-core business activities.

Business Consulting

We help clients to create measurable performance improvement and lasting change.

Human Capital

We help clients realize the value of their people by developing unique solutions to attract, manage and retain employees. We offer services in the areas of compensation and equity incentives, international employment solutions, people strategy and HR management, and retirement, actuarial and benefits.

Risk Consulting

We help clients understand and manage business risks that can impact performance and financial results, including risks relating to business processes, technology, regulatory compliance, government contracting, fraud and treasury and trading activities.

Corporate Finance

We assist clients in creating, enhancing and maximizing enterprise value by originating and executing transactions, such as mergers, acquisitions and divestitures; facilitating access to capital markets; devising strategies to optimize the value of real estate assets; and developing restructuring programmes.

Legal Services

Through the Andersen Legal network of law firms and correspondent practices in 35 countries, we provide access to legal services in commercial, mergers and acquisitions, labour, real estate, banking and finance, intellectual property and information technology law.

Tax Services

We help businesses maximize value by identifying and implementing comprehensive strategies for corporate, international, indirect and local taxes. Additionally, we provide services to help individuals and families build and preserve wealth.

Note: The services offered in particular areas may depend on local regulations. In some locations, legal and/or tax services are provided by Andersen Legal, the international network of law firms that is associated with Andersen Worldwide SC.

www.arthurandersen.com