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Employment outlook and occupational change in the media content industries (2000-2005).

Scenarios and background note.

IPTS, JRC-Seville

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Preface

Media is one of the sectors most affected by the pervasiveness of Information and Communications Technologies (ICTs).

Indeed, acquisitions and mergers are just the most visible signs of the strategic steps taken by media businesses to become leading global media and communication actors.

These new giants combine content with large subscriber basis, in a context in which the traditional rigid differentiation between media and non-media is progressively blurring. In parallel, new content-related services linked to the use of the new technologies (Internet, mobile telephony, etc) appear and develop in a high competitive market for which the regulatory framework is not always adapted.

The new context is characterised by specific drivers, like the possibility for anyone to become a content producer, the increasing customisation of content, the co-existence of different development models, a rapid increase in the demand of new types of contents and higher flexibility in the delivery strategy.

Against this background, the nature of labour relations must evolve. We witness great changes in a process of 'creative destruction': 'Traditional' employment is reduced whilst new technologies offer tremendous growth opportunities for new jobs.

Social partners, policy makers and workers themselves must respond quickly in order to take advantage of these changes.

Public authorities have to create and maintain the necessary conditions for new markets and services to flourish. In addition, they must ensure that workers and citizens can benefit from the advantages of the new technologies.

Social partners, on their side, must take the necessary steps to ensure the adaptation of both businesses and workforce to the new conditions. This means adaptation to continuously changing skills requirements, new methods of work organisation, new jobs based on technologies that will evolve or even disappear in a few years...

The European Employment Strategy has proved to be an effective response to the problem of unemployment in Europe. Under its adaptability pillar, Public Authorities and Social Partners have agreed that in a economy in which information and knowledge is the most valuable asset, investing in human resources through lifelong learning is a requisite to be successful. Social dialogue has become a key instrument in this strategy.

In this context, the recent European Summits of Lisbon and Sta. Maria da Feira stressed the need for Europe's education and training systems "to both adapt to the demands of the knowledge society"; it also invited the Council and the Commission "to give higher priority to lifelong learning as a basic component of the European social model".

To support this process, the European Commission convened a group of representatives of the European Media Content industries to discuss the contours of the future working conditions and industrial relations in this sector.

In a series of meetings, participants produced a range of analytical representations of possible developments based on the degree of customisation of content and the degree of flexibility of development.

Five possible future scenarios, each with -industrial structure, employment issues, skills and training, consequences for the industrial relations and policy attitude- were discussed.

This report offers an overview of the questions posed and possible responses offered to transform challenges into employment opportunities. It does not intend to be conclusive or to predict success of sectors on individual firms.

However, it is clear that the technological evolution brings us to a 'Pervasive Media' scenario in which continuous acquisition of skills and adaptation to new forms of work organisation are essential.

Companies and workers should therefore take rapid action so as to seize opportunities offered by new technologies.

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Introduction to the document

With liberalisation, new techniques and new transmission and transport platforms like the Internet creating new media outlets, the media sector will be subject to substantial industrial change over the next 5 to 10 years.

To focus the work DG Employment and IPTS agreed to concentrate the analysis on the content layer of the media (i.e. excluding telecommunications infrastructure and software interfaces) in particular:

- How digitisation will change existing media, create new media and subsequently affect employment and occupations, and
- The responses that are called for on the part of social partners and policy makers in order to take advantage of the changes underway.

The value of the exercise might be gauged in that, in contrast to employers, workers seem to be less aware of the possible changes ahead. A 1997 questionnaire amongst European Media Unions (with a response of 17.7 %) revealed that only 6 unions think their staff is well prepared for the challenges posed by the IS¹.

However, as the March 2000 ILO Symposium on “Information Technologies in the Media and Entertainment Industries: Their Impact on Employment, Working Conditions and Labour-management Relations” illustrates the issue is very much on the agenda of industrial relations.² In fact, in one of the preparatory documents of the ILO meeting, it is stated:

“Traditional labour-management relations have problems coping with technology and other developments in media and entertainment, because the workforce is more fragmented than before, and enterprises are subcontracting work that used to be core business. Thus new forms of social dialogue and interaction are seen by the ILO as essential for developing these industries at all levels; a means to address the impact of information and communication technologies, and issues relating to social protection and informal sector workers in media and entertainment; and a way to promote training as a central strategy to safeguard the interests of all stakeholders. There is great scope for such initiatives in this restructured, more globalised and technological environment, and the Internet and e-mail offer increased scope for communication and organisation within and across sectors and countries.”³

Three key questions for the social organisation of the sector come in that respect on the forefront.

1. How will the sector deal with the ongoing re-organisation as a result of new ICT's?
 - From sector (print, film, ...) and sometimes job-based (journalist, graph people, cameraman) organisation and unionisation, to the need for a cross-sector, casual approach?
 - From a rigid differentiation of media and non-media, to a blurring of media and brands?

¹ Survey by Musenet, <http://www.ifj.org/musetnet/surveye.html>.

² <http://www.ilo.org/public/english/dialogue/sector/techmeet/smei00/index.htm>

³ www.ilo.org/public/english/dialogue/sector/sectors/media.htm, p.5.

2. How to respond to the need for re-skilling and repositioning of people as professionals, with the transition from narrow specialisation to polyvalence spanning creative (writing, editing,..) and technical (web-casting, html...) competencies?
3. How to build adaptability into the learning system: in order to support on-going change and to move from single disciplines to broad vocational capacities and interdisciplinarity.

To answer these questions a background note was prepared (Annex 1) and descriptions of five media content scenarios were prepared and are presented here.

The scenarios were developed in two steps: first a trend generation workshop (held in Brussels on the 9th and 10th December 1999) and a second scenario validation plus issue generating workshop (held in Seville on the 11th and 12th may of 2000).

The background note provided information for the debate in the two workshops. It provides a state of art description of implications of new digital media content trends for occupation, skills and industrial relations.

The chairmen's report (Annex 2) provides comments on the whole.

Finally a list of all participants is provided (Annex 3).

Employment outlook and occupational change in the media content industries (2000-2005)

Five scenarios

O. Introduction.

IPTS convened two expert workshops that identified eight specific industrial key drivers affecting to a larger or lesser extent the existing media industry and the content industry to emerge.

Using a voting procedure, the drivers were ranked in rough order of quotient of importance and uncertainty (top ranked are the most important and uncertain).

1. Drivers.

➤ "Everyone" becomes a content producer

Content production is no longer an exclusive activity of the media industry as such as ICT's lowers the costs of production and distribution to such a degree that potentially every individual or group can become a content producer (and if successful a medium). The implications could be such as a significant rise in 'self-publishing', a flowering of small scale actors (firms, action groups, etc) delivering content to tightly defined audiences and perhaps using staff that do not have a professional background.

➤ Customisation of content

ICT's make on-demand design of content and on-demand retrieval possible to the individual level. This could shift media content from pre-packaged to modularised to even interactively defined content, generated using customer profiling and scripting algorithms.

➤ Co-existing development models

Horizontal integration (i.e. new players entering the media sector from telecommunications, computer industries, etc.) & vertical integration of media industries (with media firms getting involved in all areas of media content production and distribution) will co-exist. The availability of risk and venture capital (and of supporting foundations) will play a role here as will the emergence of "hip" entrepreneurship in the content industry (the "Silicon valley" mindset i.e. taking risks and valuing start-ups)

➤ New types of content demand

As a result of the two first drivers, making content for niche markets ("meso media"), becomes technically and economically feasible. This will be an answer to rising demands for

content that meets tightly defined needs, e.g. local or highly segmented special interest information. This trend is reinforced by social and demographic factors labelled as 24 hr society or "Mosaic Society"⁴

➤ **Delivery strategies will be flexible**

This goes hand in hand with the second driver and indicates that content can be customised for delivery in a highly flexible way, using whatever channel from print to wireless.

➤ **Uncertainty of change in "content" to 2005**

This driver indicates, because of the deficit of good information (on the trends), the impact of policy action (or inaction) is unpredictable (e.g. policies on access and inclusion)

2. Scenario construction

The structure of the scenarios was formed by defining two principal axes. The first two drivers (listed above) were merged to create a first axis on *the degree of customisation of content* varying from (traditional) push, point-multi-point models towards highly customised "pull models" of content.

A second axis is based on *the degree of flexibility of development models*, depending on how the existing vested interests (i.e. today's large-scale media companies) "get the message" and move towards "flexible development models" (i.e. horizontal and vertical integration).

This approach permitted the construction of five scenarios that describe the extent to which new firms take-off and take-over the new media markets and whether there is high growth in demand for interactive and customised content.

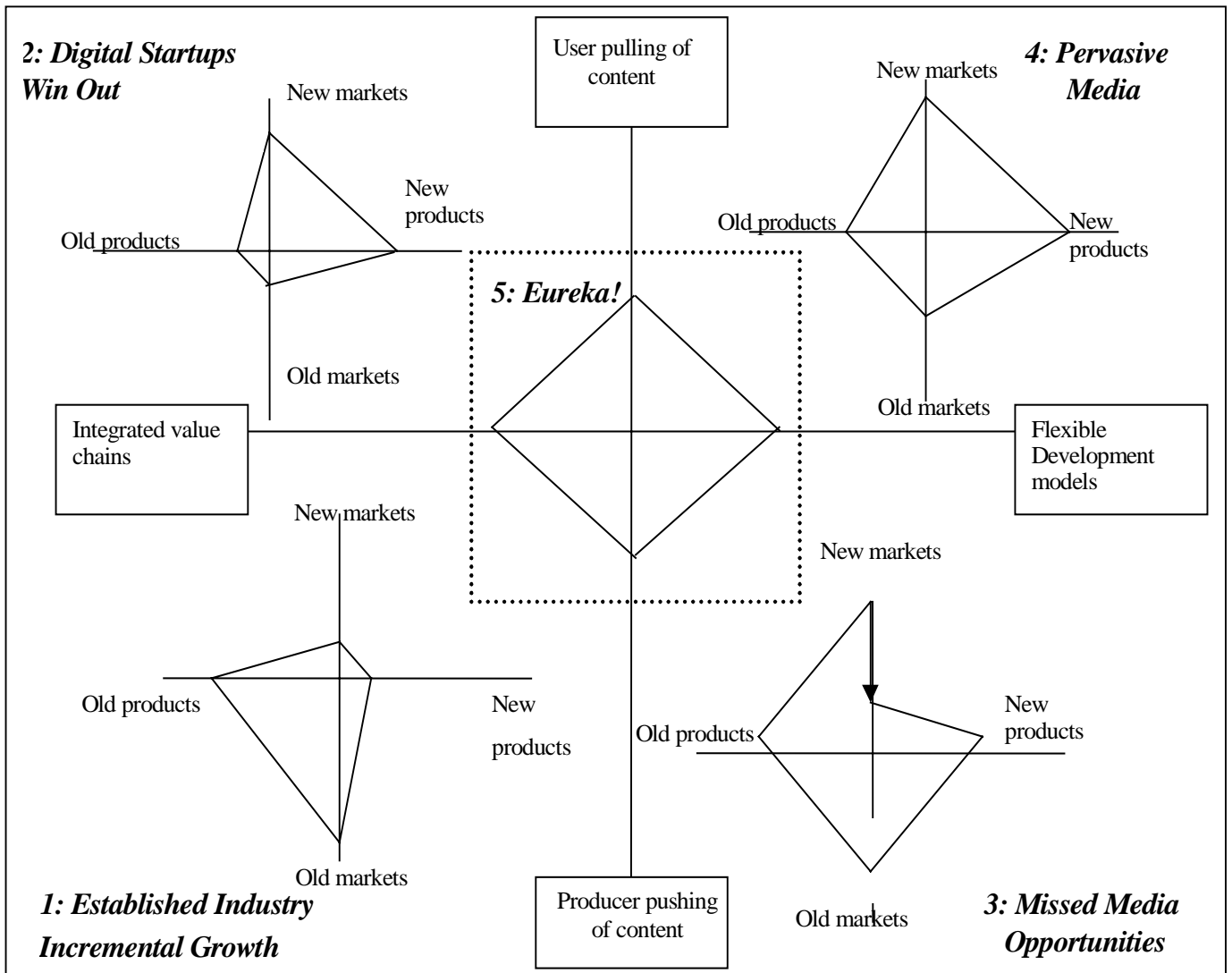
Four of the scenarios also have a sub-structure (developed in the first workshop) which portrays new business models for the media industry in terms of the extent of developments of mixes of old/new markets and old/new products. The relationship between these business models and the scenarios is illustrated in the diagram below. The fifth scenario, the "Eureka!" scenario, sits astride the intersection of the two axes. It portrays an integrated situation with a high level of development overall and with a business ecology that is diverse enough to permit the co-existence of both integrated and flexible content producers and with both pre-packaged and user definition of content.

The possible implications of the scenarios are further described in the following pages. It should be noted that the scenarios do not aim to predict successes of sectors on individual firms and products. Rather they indicate generic trends of the sector and how these will affect industrial relations. They do aim to provide a framework for thinking through the implications of these generic trends and possible responses to the changes that are identified in the scenario descriptions and in the background paper.

⁴ See IPTS Demographic and Social Trends Panel Report, Futures Project report No. 2, IPTS-JRC, Seville

3. Media Content Industries: 5 industrial scenarios to 2005

For each scenario industrial structure, employment issues, skills and training, consequences for the industrial relations and policy attitude is listed. The way these scenarios are presented does not indicate a linear logic of evolution. On the contrary it is quite likely that mixed situations will occur. Nevertheless, the experts agreed that today's situation is a competition between the Incremental Growth and the Digital Win Out scenarios. Whereas tomorrow could be close to the Pervasive Media scenario and "the scenario to go for", is the 5th one, which is why it was called 'Eureka'.



3.1 Established Industry-Incremental Growth Scenario

Industrial structure

Large vested interests retain market power offering pre-packaged media services with little customisation interactivity. Whether this is due to demand-side or supply side conservatism is unclear. The take off of small new media start-ups and new flexible organisational structures is slow. Today's established companies still rule the market in a "business as usual" way, for better or worse...

Employment

Employment is expected to show *relatively slow growth* driven by increasing demand, further market segmentation and developments in entertainment. A *possible decline* in employment (up to 5%) is expected due to productivity gains via new technologies, organisational restructuring and downsizing, market losses as a result to global competition and a decline in public service media. Similar trends in the traditional market appear to be already observable in various countries, including the US. If terms and conditions worsen, this could lead to a "bare survival model". Working conditions will be subject to marginal changes in line with generic trends towards flexibilisation, deregulation and so on. Established companies expand their young, technologically oriented and perhaps less well-paid staff workers to meet the marginal growth of new digital media. They are not however regarded as full professionals. For example web-content producers are not considered as journalists. Their role is mainly to reproduce existing content upon various delivery systems. Overall sites may be managed by experienced journalists but on-line content production continues to be regarded as outside the accepted professions.

Skills and training

New skill and training demands grow fairly fast but from a very low base, so their overall impact remains low. New personnel must be technically well aware. Expected competencies are comparable to those of sub-editors: interactive footnoting and making up of WYSWYG final products. "Quality journalists" and people with a longer experience are still necessary, especially in editing defining story lines and other tasks associated with information gathering and production. Marginal adaptations to the existing training system are able to match the demand.

Industrial Relations

A marginally adapted social dialogue structure covers the main issues and players, even though a small but significant group of new media workers are perhaps left out. Working conditions of new personnel could be comparatively worse, in particular in declining markets. Increased global competition will worsen the terms and conditions for existing personnel and may extend to all categories of personnel. Self-employment among young technicians may rise, expanding existing discrepancies of working conditions. Training issues are less central. Existing infrastructures cope with initial training and a modest development of private initiatives (firm-level, professional accreditation) covers the rest.

Policy position "wait and see"

3.2 Digital Start-ups Win Out

Industrial evolution

This is the Internet geek dream scenario. New media start-ups triumph because vested media interests don't see the opportunities and/or hang on to their traditional integrated vertical structures. The result is a high growth of new markets and products but for specialist interactive services industries – supported by high levels of demand for new content. Being first into the market is the best value for money. Smart SMEs multiply, reinforce and acknowledge a new entrepreneurial mindset. Employees are multi-skilled. Division of labour may come on the mid term, but enhances the trend to sub-contracting, self-employment and stand alone SMEs. A new industry and major new players could emerge, relying on the Internet growth model (like Yahoo!, Hotmail etc.).

Employment

A permanent wave of innovation feeds a *gold rush model* of employment: be first, risky, project-oriented, hype driven, self-employed, multi skilled, etc. Emerging companies and jobs may prove fragile, while depending on the temporary revenue stream of risk capital. On the longer term there is a real risk of serious sector job decline, up to 20%. The latter is explained by the fact that old media industries decline and online start-ups remain small, due to the destabilisation of traditional companies and markets, and the size and weaknesses of unstable start-ups, SME's or even major players. Open labour conditions prevail: loyalty goes to projects rather than to companies (port folio workers), mobility is a must, time scheduling is flexible and extended to the 24/7 concept. To be rapid and *ad hoc* is a survival must. Positions and wages relate to immediate skill scarcity, individual differentiation, projects' successes, and stock option values.

Skills and training

Multi skilled horizontal small teams are built up for specific projects. English is the working language. Technical and graphical skills yield high rewards but rapidly become out of date. To demonstrate possession of "hot skills" will require experience, not just certification: there is a growing amount of college "drop outs" in the sector. Training becomes an individual in house incentive, as part of the negotiated wage package. New skill demands demonstrate to be chaotic, due to the turbulent market structures. The traditional education system fails in responding to such a strong demand. Private initiatives multiply, in order to meet the skills' shortages.

Industrial Relations

Social dialogue traditional structures are heavily challenged to the point of obsolescence. Young entrepreneurs are not interested in "social dialogue" as it is seen as "old economy". Thus, small sized emerging companies become under-represented and young people under 30 often left aside. In a growth model, one could afford for such a situation, but existing sector threats should favour the resurgence of existing legal frameworks and their adaptation to the emerging situation. Collective representatives of new emerging actors should be designated and possibly permanent instability of companies, professions, products and markets taken in account.

Policy position: Being digital.

3.3 Missed Media Opportunities Scenario

Industrial evolution

This scenario basically results from a demand failure development. Established companies as well as start-ups promote the new digital media by putting innovative products and services out, but there is a lack of consumer acceptance (due to a lack of interest, inappropriate pricing strategies, lack of skills on the part of consumers, etc.). Here working patterns probably change more than in the "incremental growth" scenario, because there is a lot of experimentation and new start-ups. But, the lack of take off of the market means that new skill demands do not become generalised and many workers may find that expensively acquired hot skills are not valorised.

Employment

Overall growth in media content employment was estimated at up to 5% per year, being the result of established companies investing in new media opportunities and start-ups being set up. Technically oriented skilled personnel are sought out and can command high salaries. Positions should thus be rewarding, companies competing for candidates and many people are attracted to these new jobs. Nevertheless, the revenue model in this scenario is unstable. A serious industrial shake-out occurs because real demand does not keep pace with the initial risk investments. As a consequence, employment could rise and then fall, or at least there are too many "qualified" workers chasing to few openings with possible additional negative side effects on working conditions.

Skills and training

Pressure on the training system exists in this scenario. Availability of sufficient cohorts of skilled personnel is not guaranteed in the first phase. This will enhance competition and incentive oriented pay awards, accelerating the moment of truth for the inadequate revenue model and in addition to pay, as many of the incentives will be in the form of stock options. Furthermore, established companies will have growing difficulties coping with scaling up in-house training and radically new mindsets to meet both technical and/or 24/7 performance requirements.

Industrial Relations

Existing social dialogue structures will struggle to maintain an image of being relevant in the first part of this scenario, but will be essential after the crunch. Working conditions of new personnel could be comparatively better in the short term, raising rapidly discrepancies inside companies' personnel and among start-ups in the sector. On the longer term, pre-established working conditions should help managing the effects of lack of expected growth and foreseeable cut-offs.

Training issues are only occasionally taken at heart.

Policy position: "business as usual".

3.4 Pervasive Media Scenario

Industrial evolution

This scenario stands for a successful shift from traditional to new media. Big firms move wholesale into the new media production structures. They go multi-channel (Web-TV, mobile, Digital Television) so that the medium no longer is the message. New approaches to content, including customisation, are widely accepted by consumers and as a result there is a lot of innovation at grassroots level, with important substitutive effects on the sector. Work patterns change radically and fast in the majors with new "intrapreneurial" start-ups based on digital media claiming a large slice of the corporate attention. But experience is valued and making "New Media" benefits from old media know-how.

Employment

High growth of market and employment is expected, with an estimated +10%, and many new job profiles emerge. Working on line is seen as rewarding: accurate, rapid and interactive. Technically driven content capacities evolve to hybrid ones: so-called *quality journalists* have a chance of intermingling with new personnel among task oriented working groups; cross fertilisation is at stake; middle management loses legitimacy. A project driven archipelago-organised industry emerges. Various discrepancies appear also: conflicting time management (24 hour client driven company), heavy wage disparities, specifically when developing subsidiaries of existing established majors or offering new positions to highly demanded technicians. Internal competition may become an issue. Staff development careers plans are urgently needed.

Skills and training

Traditional occupations, skills and patterns of work are under threat, while new hybrid, technology and business know-how skills are ascendant: story-boarding, digital project management, script writing, etc. Complementary training is urgently needed. Lifelong learning is company based and focused on additional qualification rather than on specialisation. In house training is coupled with specified contract terms. This very high level of demand is not sustainable as such. New educational start-ups, mainly on private initiative, emerge in various domains (Technology but also, Business administration, Communication and Creativity), offering new models of training (Business school type, co-financing schemes, producer/customer tutoring, etc.).

Industrial Relations

Existing social dialogue structures confront a heavy agenda of growing discrepancies and exceptions while major firms adapt to a substitution trend leading to sector transformation. Sector based and professional frontiers are slowly blurring. Adapting rapidly irrelevant social dialogue structures is nevertheless possible if taking in account new actors and new professional profile definitions. Managing the evolution of the sector working conditions, guaranteeing journalistic norms and values and helping developing adequate training structures are becoming major goals.

Policy position. Selective support for the new economy.

3.5 Eureka: Integrated Media Development Scenario

Industrial evolution

This is the scenario with the highest level of integration and co-evolution between traditional and new media. It offers simultaneous development of complementary products and markets, and the co-existence of traditional and new media. The content industry is then proactively entering the "New Economy". New players also emerge, some based on innovative business models. Existing majors reinforce their traditional core production and markets by going multi-channel (Web-TV, mobile, Digital Television), be it in-house or within subsidiaries or spin-offs. "Completion" (complementary competition) is on the agenda as old and new approaches to business and content are well accepted by consumers. There is a major market growth, characterised by its diversification and its further segmentation. Work patterns change partially, wherever complementary or new competencies and processes are needed. New "intrapreneurial" start-ups based on digital media can only claim a relative slice of the majors' corporate attention while new start-ups flourish.

Employment

High rates of employment growth occur, estimated in the workshops to be up to 30%. Traditional professions and jobs keep being relevant and may, to various extent, interact with complementary activities in new media area. Simultaneously, a range of new competencies and professional profiles develop in established companies, subsidiaries and start-ups. Expanding demand allows for growth and profitable feedback on the sector as a whole. Working conditions are very diverse, including flexible settings, all supported by improved wages, incentive packages and staff career management possibilities.

Skills and training

Most traditional occupations, skills and patterns of work are not under threat (with the exception of analogue technical skills), but hybridise with new technology and business skills. Complementary training is urgently needed, – on the job, in house or out. Lifelong Learning is company based in bigger companies, for established as well as new players, and is focused on additional qualification rather than on specialisation. In house training is then coupled with specified contract terms. Start-ups and spin-offs still rely on multi skilled people, chosen for their experience and trained in private settings on a project based rationale. The very high level of demand outstrips supply to a dramatic level. Hence, new educational start-ups, mainly on private initiative, emerge in various domains (Technology, Business administration, Communication and Creativity), offering new models of training (Business school type, producer/customer tutoring, etc.).

Industrial Relations

To maintain relevance in the new situation social dialogue structures progressively encompass new actors, new activities and new issues. New procedures for setting up "temporary institutions" that provide rules for tackling new issues and absorbing new actors are emerging. Hence new rules for representativeness and decision making have to be created. New mindsets (collaborative success culture), new settings (virtual or momentary representatives) and new forces (SMEs, etc) should be acknowledged. Predictable growth and globalisation trends necessitate to take on board broader interests stemming from geopolitics, emerging corporate responsibility, environmental concerns, etc.

Policy position. Mutual support for the new (and old) economy.

Annex 1. Employment outlook and occupational change in the media content industries (2000-2005). Back ground note

The note is organised in 4 main sections. First, the overall trends with regard to growth with restructuring of the media industry are outlined. Second, drivers of change like globalisation, liberalisation and convergence are analysed against their possible impact on the sector. Third, in the light of these changes, new occupations and skills are presented. Fourth, consequences and key questions for the social dialogue are drawn.

1. Industry and Employment trends

The overall culture industry (including performing arts, heritage and education, cinema and audio-visual, publishing and recording, press, crafts) is substantially representing 2 per cent of the workforce and more than 3 million people in the EU (1995) (2.5 million if art and crafts are excluded). It is also growing strongly. In Spain it grew 24% between 1987 and 1994. In France, it grew by 37%, ten times the average rate of employment expansion, between 1982 and 1990. In Germany, jobs for producers and artists grew by 23% between 1980 and 1994.

A more focused look at the audio-visual sector (broadcasting, radio at local and national levels) shows that around 1 million people work in this sector (see Table 1).⁵

Table 1: Employment in the audio-visual industry in European countries

Country	Employees Audio Visual industry (DGX and DGV 1997/8)
Austria	3 681
Belgium	20 889
Denmark	14 699
Finland	7 025
France	177 108
Germany	200 760
Greece	10 134
Ireland	6 086
Italy	144 023
Luxembourg	2 320
The Netherlands	57 186
Portugal	8 918
Spain	88 523
Sweden	10 907
UK	198 543
Total	950 802

Source: *Employment and the audio-visual industries (1998)*⁶.

⁵Data on employment and occupational structure of the media sector in general and the impact of technologies on it in particular are very poor, selective and often not comparable.

⁶ Pre-report to Working Group 1 of the European Audio-visual Conference - Challenges and Opportunities of the Digital Age 6-8 April 1998 - Birmingham, p.21, also in J. Ouajj (1999) New technologies, employment and qualification, pp. 24-27 in The Bulletin (European Institute of the Media), 16/3

It is forecasted that industry revenues would grow by 70% up to 2005, leading to the creation of 350,000 new jobs.⁷

Using a different definition, other data has found that it grew by around 40% over the ten years to 1992, the most recent date for which comparative data could be found. More recent predictions, but at the national scale for Germany confirm this image of strong growth (Table 2).

Table 2: Impact of New Media and Communications Technologies in Germany within the next 10 years

Jobs directly created by New Media and Communication Technologies	500,000
Jobs that will have ceased to exist because of the new technologies	300,000
Rise in number of jobs in communications (2005)	1.3 to 1.47 million
Increase in turnover communication sector (2005)	€148 billion to 286 billion

Source: Polytechnic University Düsseldorf, the Bulletin, 3/96, European Institute for the Media

As regards employment in the new electronic environment in general⁸, for the content industries, unfortunately even the most basic data are not available – let alone data on new trends. For the AV sector, which is probably the best documented of the whole content industry, the "European Audio-visual conference" of 1998 (organised by the then DG X) noted that the European Commission recognised the lack of accurate basic data on numbers employed in the media, wages, percentages of full versus part time, etc. According to this document better data on the sector (in the traditional definition, not including "e-trends") could only be expected at the earliest in 2000. It concludes that "earnest efforts, both by industry and governments must be undertaken as a matter of urgency to remedy this information gap."⁹

The lack of comparable data makes it hardly possible to answer such vital questions as whether or not the availability of new types of content lead to a reduced consumption of traditional media. On the basis of historical analogy nothing more can be said here except that new content will eventually complement existing content provision.

There seems to be a process of creative destruction governing employment in the sector. On the creative side, broadcasting channels for example, due to better and cheaper transmission techniques like satellite, cable and very soon Internet, continue to expand in number. However, not only is broadcasting increasing its presence via traditional media systems, it does so as well via "net-presence". In particular radio stations are very active on the net, but more and more web sites are set up to support the TV programming as well. Or start a life of their own. But there are also indications that Internet usage reduces media consumption (e.g. film, TV etc.) even whilst stimulating the consumption of traditional media (newspapers, radio etc.). However, the growth in new areas will have to compensate for declines in employment in traditional areas such as print and postal services. For example currently around 80% of workers in the production and distribution of mass media in Germany work in print and publishing. Projections from DIW/Prognos suggest that this sector will decline by 10% by 2010, soaking up and displacing much of the gain in employment in

⁷ Principles and guidelines for the Community's Audiovisual policy in the digital age, COM(1999)657 final, 14.12.1999, p. 3.

⁸ Ref to Portugese Euro-stat paper, 3-2000.

⁹ <http://europa.eu.int/eac/papers/engwgl1a.htm>, p. 9.

"new media" ¹⁰ The process therefore seems to go in both directions¹¹, but solid verification is impossible.

Box 1. On-line content production

The BBC site is one of the most popular online resources in the world. It has 60 editorial staff members, creating more than 300 stories a day and it has a searchable database of over 61000 stories. The operational key to its success is CPS, a Content Production System that translates the journalists' work directly to the web. The BBC has also integrated the technical department in the newsroom, so that the different parts of the production chain are in constant contact with each other. Finally also contributing to its success is the selection of sites the BBC site offers to the user.

Characteristic of this emerging area is that the whole strategy is more based on trial and error than on the execution of a clear-cut strategy. To quote Mike Smartt, editor of BBC online "we don't have a set of rules because we are learning as we go along. I don't think anybody in this business knows precisely how to do this". (Gazette, p. 375-376).

However, whatever the balance of creation and destruction, it is necessary to prepare for the new jobs that are being created in the new media. These come from a variety of sources. Some new media jobs come from extensions of existing media. The Daily Telegraph online claims 1 million registered users (which is several times its total readership), whereas the Scotsman online claims that 65% of its online readers come from outside the US (Gazette, p. 376). Both forms of circulation generate their own advertising stream and will therefore probably continue to co-exist.

A 1998 world wide survey found that most online sites of newspapers – 4925 in total (of which 60% are US) - employ on average 8 full time people, with a growth rate of 40% per year. Whereas in a 1997 study on American online newspapers 20% of them claimed that at least half of their daily offered content was original.¹² Parent web sites to existing print and broadcasting media in Europe were found to employ between 15 to 30 people.

Parent companies offshoots on the Internet are not the only source of new media content employment (i.e. not just the replication of printed or audio formats). The figures for growth in pure Net-based content are also difficult to obtain. The only comprehensive study available on the growth of the sector is the "Australian ICT Map" in which information content (including software) is estimated at about half that of the ICT equipment market (in annual revenue).¹³ The study found that revenues from network content (including online publications, news services, database content, multi media) is as important as software revenue: it doubled from 1994 to 1998 to achieve a total revenue of US\$5660 million. Employment in the information content business rose between 1993 and 1996 by one quarter too (from 15500 to 21000). Elsewhere we rely on anecdotal evidence such as the observation that large user bases can be generated quickly from zero; many of the new content services

¹⁰ K.Schrape and W.Seufert, The economies of new information and communication technologies, pp. 69-110 in ECC, Exploring the limits. Europe's changing communication environment. Berlin, Springer Verlag, 1997.

¹¹ Forrester Brief, 28/12/98.

¹² Both quoted in M. Deuze (1999) Journalism and the web. Gazette, 16/5, p. 374.

¹³ J.W. Houghton(1999) Mapping Information Industries and Markets, Telecom Policy, vol. 23, n° 10/11: 689-701.

were hardly imaginable 5 years ago. For example Audible has 53000 paying subscribers for its downloadable audio version of the Wall Street Journal, the New York Times.¹⁴

Meanwhile, other sectors are moving onto the scene. For example, the overload of information available on the net – due to the reduced entry costs of producing online news, web casts - has stoked up the demand for greater selectivity. At the moment this is largely done by software companies (Yahoo or Altavista) or Telecom operators (such as Telefonica's Terra), offering portals that “guide” the user. These tend to be the most frequently accessed web-pages and they both contain and filter access to content in the way that the media sector has until now. It is worth noting that apart from the BBC, no media company is represented in the top 10 of the most addressed UK sites.¹⁵

Finally, the growth of electronic business will depend largely on the creation of content too. Already more and more journalists have moved to this new activity to tailor content, e-mails and so on at a significant higher salary than in ‘normal’ journalism¹⁶. No doubt, given the explosive growth of e-commerce and the foreseen increase at the consumer level of T-commerce (interactive TV based electronic commerce) these new jobs opportunities will only increase, with the need to personalised content in whatever attractive form, in order to trigger the attention of the surfer.

Box 2. The emerging trend to mobile, customised content

Most news agencies like Reuters, CNN, BBC, have developed special content pages that are downloadable on Palm, Psion or Windows CE platform. On the other hand, mobile operators or their ISPs might become media too, or at least media platforms. BT Cellnet for example claims 500000 customers for its wireless Genie Internet (launched in March 1999). It has struck deals with more than a dozen content providers, including BBC news, BskyB to deliver PDA or mobile phone customised content.

Total sales of PDAs are between 15 and 20 million worldwide whereas the mobile Internet market is expected to become the next growth area. (Financial Times, 1 March, 2000) In 2003 mobile phones in Europe will match 80% of the fixed lines (IDATE, 1999, La planisphère 2000 des Télécoms).

Against the background of some important social trends like the demand for more mobility (and the resulting hours we spend on the move or in traffic jams), this helps to explain:

- why Motorola announced its alliance with 19 Internet content providers (including Amazon U.K., Reuters and Sports.com) who will offer their services on the company's cellular phones at CeBit 2000
- why Oracle created a new company OracleMobile.com to deliver web based content on cell phones (CNET, 24/2/2000) via a special portal with Internet content optimised for small displays.

Issues:

- The sector is in an important area of shifting as well as of new employment growth.
- There is evidence of "creative destruction" in employment patterns with some significant declines expected in the larger and more traditional areas of employment. However, just

¹⁴ J. Ryan, Downloadable audio news: a model for the post pc future? Online Journalism review, 21/5/99.

¹⁵ B. Hibbert (1999) Publishing and the media industries in the digital age. Info, 1/5:

¹⁶ In 1997 a US journalist starting in electronic media earned almost 20% more than his fellow starting in print. Quoted in J. Benning (1999) From doing good to doing well. When journalists go e-commerce'. Online Journalism review, 7/12/1999. <http://ojr.usc.edu>.

as in “normal” economic activities there is also clear evidence of re-intermediation resulting from the overload of info and the need for gatekeepers.

- Policy initiatives may be important in generating growth in the creative industries both from setting an enabling regulatory framework and through fostering economic development. For example, many regional governments have pursued policies of cultural industry promotion in recent years (e.g. the Temple Bar investments in Dublin) with the triple intentions of urban rehabilitation, economic growth and employment creation.
- The social organisation of the new jobs tends to be organised in a less traditional way, with an accent on flexible work patterns: part time, free lance, portfolio employment as opposed to full time, single employer.

2. Drivers of change

The main drivers of change in the media and communications industry relate to:

- Industrial restructuring around the search for economies of scope and scale related to features such as globalisation, industry concentration and mergers, liberalisation and convergence.
- Cost reduction of the production process in mass media, due to digitisation
- Technological change reducing entry costs for net presence and thus leading to new media, especially Internet based, the emergence of online version of existing media or new media linking communities (the e-zines), new forms of media based on Wireless Applications Protocol technology and aimed at fast and short information delivery, all including the creation of new firms and occupations (see below).
- New types of content creation across a wide variety of sectors (from health care, through museums to local governments) promoting new forms of electronic democracy emerging from the convergence of multimedia.
- Changes in patterns of demand specifically related to factors such as increases in income, rising educational achievements, demographic growth amongst the active elderly, a greater differentiation of tastes and changing lifestyles such as the growth of single person households.

The overall implication is a strong and diversified demand for new skills and an associated growth of new occupations.

Issues:

- Uncertainty over the rate of growth of the overall media sector and its different sub-sectors (Pay TV, Digital TV, Cable, Internet broadcasting...) especially as regards investment patterns, market growth and regulatory responses
- Uncertainty over the growth potential and limits of individual media consumption and thus about replacement effects (new media replacing traditional products)
- Implications of convergence, i.e. the blurred boundaries of the sector for the shape of the industry in the future (e.g. most print and non print news sites work on the basis of a common or separate vision)
- Media concentration (globalisation) and implications for jobs (numbers, quality).
- Liberalisation and the rising numbers of 'contingent' workers.

3. New occupations

To a large degree content workers will undergo the same changes as the ones detected for employment at large: the impact of the 24 hour society in terms of living and working, the blurring of private and public life due to rising free- or e-lancing, the skills mismatch as a result of technology based fast changing occupations, the need to fit life-long learning into working life, the increasing demand for fast and flexible adjustment to fast changing industry needs, the overall need for net capability and literacy etc..¹⁷ And if not well looked after by policy (social dialogue), it will here too generate the same negative effects: more workload, dis-intermediation and less autonomy over what has been made.

However, due to the nature of the content industries, some specific changes can be expected as well. Technological changes are promoting the emergence of new occupations in the media industry. In the content area a particular feature is the inter-disciplinary team-work based nature of the work, which calls for a combination of technical and creative skills and sometimes business skills that cut across traditional professions and training systems. Evidence for these trends can be drawn from studies of labour market developments in interactive digital media all of which are affected by the graphics rich environment of the Internet, such as web site design, E-commerce industry or entertainment and computer animation industry.

A surprisingly wide variety of new job roles is emerging (Box 5), the quantitative significance of which is as yet unclear. If past patterns of professionalisation are repeated, it is likely that these roles will consolidate into a number of relatively well delineated occupations. The new skills for the new media will also spill over into other areas of work not just in other media sectors, but with increasing use of ICTs into all sorts of other sectors. I.e. "media savvy" jobs will become more a generic skill. Meanwhile, there seems to be a greater emphasis on contingent employment for specific projects, rather than permanent contracts. This will of course affect social dialogue issues such as occupational definitions, professional accreditation, training provision.

Many of the jobs created will require new hybrid skills, which are not yet well provided by existing bodies and institutions. This is quite well demonstrated by a close analysis that has been carried out of changing skills structures in the audio-visual industry (Figure 2). There are two points to note. First, that previously distinct skill profiles are converging. Workers are expected to master a much wider range of tasks both within their core competencies and subsidiary skill repertoires. Second, that all jobs now have at least some demand to understand and use network based tools (the final column in the chart): in the past this was the preserve of the network technician.

¹⁷ These trends are extensively mapped in K. Ducatel and JC Burgelman (2000) Employment map. IPTS.

Box 3. Interactive digital media job roles

Technical

- Internet architect = webmaster with "muscle" able to do relational database design
- Product manager = day to day management of media content and showcases (e.g. web sites)
- Core programmers = use of "lower level" but extensive skills in C++, Windows NT, Unix for programming multimedia content
- Network security = protecting servers and sites, transactions and customers.

Creative (examples taken from animation/interactive digital media industry studies)

- Visual development – conceptualising scenes, artwork, production of 2D & 3D images, animation
- Storyboard artist – conversion of scripts into storyboard, plans shooting schedule, ensures continuity
- Layout artist – Stages scenes and camera positions, draws backgrounds and animations
- Painters and background animation - produces designs based on layouts
- Traditional animation and character effects - bringing characterisations to life
- Computer artist – producing 3D images from software, choreography of objects,
- Technical artists - e.g physical lighting specialists or shader writers (programmers to make computer generated films have the realistic light and shadow properties)
- Other creative occupations include: graphic designers, interactive writes, instructional designer, game designers, video producers, sound designers, web designers and webmasters.

Content creation

- Copy writers for web advertising = journalists producing "infomercials", writing high impact copy for advertising, news, web resources.
- Public relations services = knowing client needs, analysing the relationships between media capabilities and know-how
- Web journalists = providing 24 hour updates of news coverage, using networked resources rather than legwork, operating from virtual press agencies.
- Portal compilers = providing content and packaging for portals
- Post production workers (e.g. in music industry) = editing and selecting sound bites, integrating with video clips.

Business

- E-commerce analysts - the new media are related to new business models that require new approaches to marketing and to conducting business.
- Specialist recruitment and staffing agents = in an area of fast change, a demand for hybrid skills and growing use of contract or contingent workers finding the right people grows in importance.
- Producers and technical and/or creative directors = core team workers able to assemble production teams and to manage the production process.
- Communications law specialists = dealing with protection of intellectual property assets, guarding against prosecution for non-compliance with the emerging privacy, data protection, making sure that taxation is properly handled.
- Media planners = packaging and sale of media space, planning media exposure for clients – this job gets more complex with media convergence.
- Customer service call centre operators = dealing with increasingly on-line relations to clients

Figure 2: Trends in the evolution of competencies in the audio-visual sector

Legend											
	Today's skills										
***	Future core skills										
**	Skills to acquire										
*	Preferred skills										
		Administration	Images	Sound	Editing	Mixing	Graphics & design	Titles	Effects	Scenes	Network management
Administration and production	***				**						**
Video operator			***	***			*		**		**
Sound operator				***		***				**	**
Editor				**	***	***	*	***	***	**	*
Video manager								**	**	***	*
Network technicians		**								***	***

Source: Perti Project (1999) "Impact of the Information Society on Work and Employment, Final Report to CEC Adapt program", Prisma Consultants, Estoril.

The implications of these shifts are clear. Currently new media staff tends to have a technology or graphic design background, rather than coming from journalism or the other humanities based subjects that were the former training grounds of media industries. It is also a youthful labour market. As many as one quarter have not yet finished their initial university studies, implying perhaps a new route towards labour market entry.

Figure 3: Academic majors of personnel in new media industry¹⁸

Major subject	Percentage
Technology	33%
Graphics/ design	18%
Communications	10%
Business / Commerce	21%
"Self learned"	14%
Others	4%

¹⁸ Nina Kuokkanen, Tiina Toivola and Teemu Väänänen (1999) Uusmediatoimiala Suomessa 1999 / New Media Industry in Finland, LTT Research Ltd, Helsinki School of Economi, Helsinki, Finland.

The skill demands described in the following table show several features of the emerging new media industry, and its training implications. First the cross-cutting nature of the skills demanded (technical, communication, deep understanding of business processes). Second, the requirement to have a high level of fluency in the new technologies - a passive knowledge of technology will not be enough. Workers need to be able to get business results from these tools, which will require inventive application. Third, an ability to withstand if not thrive upon fast changing environments both in the technologies and the work and business.

Box 6. Urgent needs/lack of competence in new media industry companies related to these competencies

Understanding Digital Media

Know how of cognitive psychology in the design of user interfaces and terminals

Fluent application of pedagogics

Ability to combine different media elements

Know how of interactivity

Capability to create new business models and service concepts

Evaluation and measurement of the effects of new media (e.g. how much it is used and what are the advantages and disadvantages)

Business know how

Marketing know how

Investment relationships how to get financing

Know how of processes

Entrepreneurship and knowledge of accounting

Technical know how

Database design and programming skills related to databases

Programming (e.g. Java, Perl, C++, ASP)

Information systems design and integration

Communication know how

Advanced graphical design applicable to information networks

Know how to write multimedia scripts / Script writing skills

Know how to understand the communication processes as an entity

Leadership know how

Skills related to cope with fast growth

Strategical skills

Internationalisation skills

Project management skills

Ability to develop and manage competencies

Communication skills (internal and external)

Group work skills

Source: Tommi Pelkonen and Teemu Väänänen (1999) *Uusmediatoimialan toimenkuvat ja osaamistarpeet*. 1999.

Issues:

- Qualification demands and training responses - the vocational and educational training systems are only slowly responding to the new mix of skill requirements. Re-training provision for those whose skills and jobs are becoming obsolete (printing, traditional publishing).
- Implications for professional structures and career patterns. In the interactive digital media especially, but in television and journalism more generally there seems to be a decline of stable unionised craft professions and shift towards increased use of sub-contracted staff and temporary project based teams. What are the implications for the future of the sector for employers and the workers?
- New media will bring new employment patterns. Software, film production, journalism, artist professions, each has a different structure. New hybrid occupations might emerge, plus new employment contract structures (outsourcing, freelancing) and new workplaces (telework, Small Office-Home Office).

4. Conclusion

To a certain degree digitisation and subsequent convergence accelerates the change of the content industry already set in motion by four global drivers that are affecting these industries in EU:

- Growing flexibility of the labour market, including in the content industry
- Political issues such as e Europe initiative, deregulation, etc.
- Differentiated rates of development and/or globalisation trends, in and out of Europe
- Parallel rise of corporate responsibility and global ONGs

It is quite clear that from this perspective only, the industry is expected to continue to change in a dramatic, but not radical way.

The history of the media industries shows that new media seldom replace existing ones. In fact there is no example of a content-based medium that completely disappeared. The book, film and even theatre industries have many times been consigned to the wastebasket, but are still alive (and kicking). What does change however is the market share and the relative importance of these industries? What implications does this have for job decline in traditional sectors?

Most likely however the Internet will (profoundly) restructure existing industries as well, without destroying them. A process of complementary growth rather "creative destruction" is the most likely basis for policy making. However, the advent of Net based delivery platforms enabling convergence of up till now separate industries, and personalised (or narrowcast) interactivity in until now mainly broadcast and passive media, opens possibilities which will go beyond the repackaging of old content. New contents and new demands, rooted in changing lifestyles and ways to do business, are being generated and will most probably lead to not foreseen, or at least very difficult to foresee, new outlets and media products.

The capabilities required for digital convergence lead to new ways of working with content and new forms of labour process and labour relations. The trend towards greater flexibility that is observable in many areas of industry is also apparent in the media industry. As will be noted below, new jobs brought in with industrial change (such as deregulation) and new technologies (e.g. digital media) often bring with them new patterns of work and contracts. The following profound changes in jobs and labour relations in the content industries are in one way or another coming (depending on which scenario will dominate).

- From life-long employment/loyalty and clear/guaranteed career development paths, to increasing free lance (e-lance), self employment structures and casual careers
- From long term sector based commitments to one or a few media, to port folio self employment and/or short term commitment on a project basis (regardless of the sector or the media)
- From all skill in-house media companies, to as much as possible outsourced work around a core business only fixed company
- From a single skill profile based on creativity to a multi skill profile based on creativity and technical competencies
- From a hierarchical, mono sectoral (one medium) structure to a more horizontal, project based structure
- From a highly regulated entry to the job market (based on excellence of knowledge) to a very open entry, based on “hot” ideas

Trends towards new jobs (due to growth of the traditional media sector as such as well as in new net based media) as well as changing jobs (due to the increasing net based character of existing media) require a mix of old and new skills and hence old and new training.

Though empirical material is lacking, a scan by the authors of this paper of present training provisions in Europe reveals that the overwhelming majority of them tend to be demarcated along traditional lines. Multi-disciplinary, multi media training programs are largely missing and most content training tends to be very ‘old media’ and/or sector specific.

Annex 2

Employment outlook and occupational change in the media content industries (2000-2005). Chairman's report J. Bierhoff - International Institute of Infonomics.

In a small series of two working sessions, in December 1999 and May 2000, representatives of the European media content industries discussed the contours of the future working conditions and industrial relations in their sector. This joint project of IPTS and the European Commission's Employment DG was based on the expertise and scenario building method of the IPTS, and involved a small number, around 25 in total, of experts, IPTS staff and DG Employment representatives.

The invited experts of the media and communication sector covered the spectrum of stakeholders and issues involved, but were selected as individuals on the basis of their personal expertise. DG Employment officers participated as observers of the debates, and gave context to the origins and follow-up of the working sessions in Brussels and Seville. The process was steered, co-ordinated and nurtured with background notes by the IPTS, which is also responsible for the concluding briefing note.

A lot has been achieved in a relatively short period of time. Participants from a variety of professional backgrounds (media executives, researchers, professional bodies) and media sectors (publishing / broadcasting / online ventures, marketing, advertisement) quickly adapted to their respective approaches and expression modes. Departing from a first inventory of drivers of change, the workshops produced a range of analytical representations of possible developments in the form of five future scenarios which, to my opinion, offer a unique opportunity to continue the debate in a novel and productive fashion.

The final IPTS briefing note gives a full account of what has been said and suggested during the sessions.

This report concentrates on the follow-up of the exercise.

The media sector has been selected by DG Employment to function as a test sector for the identification of changes and their impact on industrial relations. The direct policy brief comes from the final report of the high-level group on economic and social implications of industrial change (the 'Gyllenhammar report') which strongly pleads for anticipation and forward planning as a prerequisite for tomorrow's economy.

What could be the profile of that new style dialogue, and what are the critical success factors? Here I will present some observations based on the suggestions of workshop participants and general knowledge of the media sector. I will briefly address the context for a fruitful dialogue, make some remarks on the contents of the debate, the participants and the structure of discussions, and finally formulate recommendations.

Preconditions

- 1) There is an overwhelming lack of factual material concerning European media innovation trends. There is a data overload in other branches of industry, but in case of the media, multimedia and communications developments and implications, there is not much usable research material. Some studies, in some countries, different in set-up so not comparable, not very recent, that was after thorough investigation at IPTS the basis for the workshops. Analysis, due to this fact, can at best be 'informed guessing' and forecasting on the basis of general insights, not intelligence. This in sharp contrast to the situation in the Internet reference country, the United States, where there is an impressive amount of research and reporting available, ranging from daily news reports for the profession, weekly trend analyses, annual assessment reports which meanwhile are accepted as the state-of-the-art in digital media, private and public studies which are thematic, ad-hoc and in-depth, national debate platforms and facilities which monitor the sector continuously. Europe clearly is lagging behind and paying its price for diversity and national focus. Initiatives to do something about it are formulated but have yet to acquire support. It will in any case take some time before they gain momentum and can play a similar role.

It is important to establish a basis of factuality in the media sector for two reasons. There is first the fundamental character of the change. The transition from warm (lead-based) to cold (computer-based) typesetting in the seventies, which led to serious industrial disputes, will turn out to be child play compared with the imminent changeover from analogue to digital media. At the time there was substantial preparation, negotiation and action to guide the process of creative job destruction. Now a similar process, only in a completely different magnitude, is about to take off, the industry is relatively ill-prepared for it. Proper research could map out the battlefield.

The second reason is directly related to the dialogue. If not so much factual knowledge but rather assumptions and convictions about trends rule the debate, one easily ends up in entrenched positions which are not very productive, and will not further the consideration of innovative solutions for the many problems and obstacles ahead.

- 2) It will be important to give sufficient weight to the exploration and implementation of new ways of discussing change. Different players, contents and procedures, leading to unconventional outcomes are required. One cannot assume that vested interests and existing debate structures automatically will adjust to this new context.

Debate contents

- 3) The (further) development of future scenarios is a specialised task which presupposes a broad view on the entire sector, a well-developed network of professional contacts who can be mobilised as information points, access to accumulated research findings, and above all the right mindset and willingness to focus on knowledge generation at a generic level. Scenario development is also a process rather than an activity; models and texts should be revisited and reviewed regularly.
- 4) Parallel to the present volatile character of the industry itself, the discussion about its course of development should not only take place in the form of general expectations (scenarios) but also be issue-driven. In order to become truly anticipatory, it is key to be able to insert recent developments and unconventional solutions into the debate.

Players

- 5) It would make sense to mirror the existing diversity and the arrival of new market players in the composition of discussion forums. Traditionally, a key role is given to the social partners at media production level (both employers and employees), but this not self-evident any longer in the information society age. We are witnessing a paradigm shift in power structure, and a changeover, in economic terms, from the logic of the offer to the logic of the demand. This brings the news and information consumer to the fore as a key stakeholder in the debate about future communication structures. The media consumer however is as important as fragmented, individualised, which will require new ways of representation to be worked out. The Internet is already a meeting ground for many, and possibly could be used to organise input and feedback from the different categories of users. It is worth while to create a test bed for this kind of involvement.
- 6) At the employer side there are first of all the existing professional bodies, often associations, to participate in the dialogue. Two considerations suggest a wider representation. The existing employer organisations have also as an important mandate to represent the interests of the industry, and for that reason take stances and define what's negotiable. There are examples which demonstrate that this in no way hinders an open-minded approach towards the sector in general, but there are also signs of the contrary. Secondly, the industry itself is expanding rapidly and there are many new initiatives for media content production (organisations with another core business, multimedia start-up companies etc.) which are not represented via the existing associations.
- 7) At the employee side there is a similar problem of partial representation by the existing labour unions. Many (multi)media workers do so on a self-employed basis or have free-lance affiliations with a number of contract partners. They don't match the typical employee profile, yet are becoming the predominant production force, certainly in the new multimedia ventures, and increasingly in the more traditional mass media. To some degree they feel attracted to new economy type of organisations which unite journalistic and technical, print, audio-visual and online, public domain as well as commercial operations, as is the case in for instance Switzerland.
Another option for representation are the media organisations which have always stayed away from industrial discussions, and concentrate on professional issues (press clubs, houses of the press etc.), often set up by specialisation. Certainly for the thematic sessions of the dialogue process they could be an important player and source of inspiration.
- 8) A fourth category of participants are the independent experts, who can oversee but not so much represent the sector. These people will be in a position to feed the debates with new facts, analyses (scenarios) and can insert visions to provoke new discussion lines. These are also the partners who are in a position to break possible stalemates. Various international and national research institutes, further training outlets, observatories and consultancies could provide candidates for this role.
- 9) A fifth category are evidently the policymakers who will have to provide the regulatory grid for the information society. It is key that this work is conducted in close contact with the media industry. An important point in this respect is to find the right breakdown between the European, regional and national level, and between intervention and abstention. Again, the social dialogue process will be the right arena to sharpen the instincts in this respect.

Structure

- 10) A European-wide discussion on the communication sector will have to take into account that media in Europe above all belong to the cultural domain, which is strongly determined by national considerations and for that reason very diverse, with contrasting and even contradictory views on particular issues. This point requires special attention. It will for instance be necessary to check the variety of opinions from issue to issue.

To complicate the situation a bit further, media are not only country-specific but at the same time increasingly international in their orientation and business approach. Digitisation, convergence and concentration into large groups are global processes, and for instance bring American (Asian) interests, so influences, so business practices to the old continent. This will have to be factored in the dialogue format.

Another element to pay attention to is the character of the 'new economy', which favours flexibility and shows a substantial amount of temporarily initiatives. The 'come and go-economy' doesn't allow fixed representations for longer periods, in other words, the composition of participants will have to be adjusted from time to time.

As suggested earlier, not all the work has to be conducted in physical meetings. Information technology caters for a number of other, additional means of communication, for online surveys, teleconferencing contributions etc. It would be interesting to see to which extent the European media dialogue can be conducted with modern media means.

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Annex 3

Employment outlook and occupational change in the media content industries (2000-2005). List of Participants

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