<table>
<thead>
<tr>
<th>Title</th>
<th>The human factor in the multimedia environment</th>
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<tbody>
<tr>
<td>Author(s)</td>
<td>Becker, Andreas</td>
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The Human Factor in the Multimedia Environment

Andreas Becker
Senior Consultant, Wert & Partner
Frankfurt, London, Singapore, New Delhi
Kuala Lumpur, June 21, 1997

Overview

1 Multimedia and its implications
2 Qualification and culture
3 Change and management
4 Chances and risks
5 Summary and outlook
Multimedia and its implications

Four main areas will be affected by multimedia:

- Home office & shopping
- New information sources
- Individualisation
- Data transfer

- standard
- common
- future
1. Multimedia and its implications

How will your customers and employees be affected by multimedia?

2. Qualification and culture

Multimedia requires changes in all major aspects of human resource management

- broad education
- continuous learning
- high involvement
- self motivation
2 Qualification and culture

Qualifications will have to be expanded
traditional publishing approach
content knowledge technology knowledge

multimedia approach
no clear distinction between content and technology knowledge

Today, a huge variety of multimedia jobs exists

cos-ordinator multimedia
digital media publisher intranet system engineer

screen designer multimedia programmer

3-d operator electronic publisher

management Consultants to Media, Printing, Packaging
## Qualification and culture

### Education & qualification profile: media designer

<table>
<thead>
<tr>
<th>Theoretical background</th>
<th>Specific IT knowledge</th>
<th>Core competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• media history &amp; ethics</td>
<td>• operating systems</td>
<td>• data import</td>
</tr>
<tr>
<td>• copyright regulations</td>
<td>• user interfaces</td>
<td>• data export</td>
</tr>
<tr>
<td>• communication theory</td>
<td>• screen design</td>
<td>• data manipulation</td>
</tr>
<tr>
<td>• industry knowledge</td>
<td>• 3-d animation</td>
<td>• picture manipulation</td>
</tr>
<tr>
<td>• business administration</td>
<td>• video integration</td>
<td>• colour manipulation</td>
</tr>
<tr>
<td></td>
<td>• audio integration</td>
<td>• typography</td>
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<tr>
<td></td>
<td>• project planning</td>
<td>• project planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Internet editors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• proofing</td>
</tr>
</tbody>
</table>

### Multimedia requires a different culture (1)

- **from...**
  - function oriented
  - hierarchies
  - specialists

- **to...**
  - process oriented
  - teams and projects
  - generalists
2 Qualification and culture

Multimedia requires a different culture (2)

from...

outdated technology
orders & control
bureaucratic
low acceptance rate for change

...to...

innovative technology
responsibility & delegation
flexible
continuous improvement

3 Change and management

Example: editorial functions in the multimedia environment
3 Change and management

Resistance to change is a permanent challenge for management

Multimedia

Conventional media

Time

4 Chances and risks

... for your employees

Chances
• productivity increase
• development of new professions
• reduction of business travel needs
• better training opportunities

Risks
• loss of professions
• information overload & discrimination
• unwillingness to expand knowledge

Management Consultants to Media, Printing, Packaging
4 Chances and risks

... for your customers

Chances
- easier access to information & services
- individualised information & entertainment
- possibility of continuous education
- chances for home working & shopping

Risks
- ready for two-dimensional / active multimedia
- ready for necessary investment in HW / SW
- information overload / discrimination

4 Chances and risks

... for management

Chances
- more flexible company structures
- new products & customers
- better customer service
- less time and money spent on travel

Risks
- investment costs for equipment & training
- loss of control
- unawareness of multimedia technology
4 Chances and risks

Multimedia enables you to handle the information overload.

Available knowledge

Different users with different needs

Different levels of knowledge

Different users with different information

5 Summary and outlook

Your business will change on many levels. Your employees working with multimedia will be...

- ... multifunctional people
- ... less specialists - more generalists
- ... more creative people
- ... more responsibility taking people
- ... more flexible people
- ... more dynamic people
- ... more entrepreneurial people

Finding these people will be the key success factor.
5 Summary and outlook

<table>
<thead>
<tr>
<th>Paradigm shift through multimedia</th>
<th>Production society</th>
<th>Information society</th>
</tr>
</thead>
<tbody>
<tr>
<td>economy</td>
<td>manufacturer-based</td>
<td>information-based</td>
</tr>
<tr>
<td>means of production</td>
<td>centralised &amp; private: the factory</td>
<td>decentralised &amp; public: mind &amp; network-computer</td>
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<tr>
<td>means of transportation</td>
<td>physical</td>
<td>networks</td>
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<td>mass communication</td>
<td>- uni-directional</td>
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<td>- passive audience</td>
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<tr>
<td></td>
<td>- elite as censor</td>
<td>- audience as censor</td>
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