The Evolution of Technical Communication in Europe

AGORIA R&S Event 2015

Dr. Michael Fritz, Executive Director
Dr. Claudia Klumpp, Standards (tekom Deutschland)
OUTLOOK

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• Competence Framework
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The objectives of tekom Europe

“tekom Europe's objectives are to promote and further develop technical communication in Europe, to develop European standards for the quality of technical communication and to increase the importance given to technical communication throughout Europe, both in business and among the general public. tekom Europe develops and fosters occupational profiles for the technical communication sector that are valid throughout Europe.”

2.1 tekom Europe regulations
tekom Europe is an association connecting more than 9,000 professionals in the field of Technical Communication in 10 countries all over Europe

- **Events**
  - tekom/tcworld Germany, tcworld India, tcworld China, tekom Europe Road Show, Information Energy, Evolution of Technical Communication (ETC)

- **Contents**
  - tcworld magazin, tekom book series, tekom academic book series, magazine „technische kommunikation“, tekom.de, tekom.eu

- **Training and Certification**
  - TCTrainNet online training platform, tekom certification
What we do

• **Support our members ...**
  We support our members, so that they can be successful on their job / in their business. (e.g. [Guidelines](#), Expert Advice on legal issues, terminology, content management etc.)

• **Offer a neutral platform...**
  At tekom events members from all sides of the business meet. tekom/tcworld conferences are marketplaces for the demand / supply side in technical communication

• **Set standards ...**
  tekom publishes guidelines and develops further the job profiles / qualification framework for technical communicators

• **Lobby for the benefit of our members ...**
  e.g. active participation in international standardization work in the fields of technical standards and education
User Information

Examples:
- Assembly Instructions
- User Manuals
- Online Help (Software)
- Service Information
- Maintenance Manuals
- Repair Manuals
- Disposal Information

Idea
Design
Production
Sales
Mounting / Installation
Use
Maintenance / Repair
Recycling / Disposal

Internal Technical Documentation

(External) User Information

Pre-Sales

After-Sales
Evolution

EU Legislation: Increasing Importance of Technical Documentation

eDoc: Digital Revolution is Changing Technical Communication

Development of a cross-industry Competence Framework
EU-Legislation

- **Decision No 768/2008/EC** on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC
- **Regulation (EC) No 765/2008** setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93
- **Alignment Package:**
  - 8 Directives setting up obligations for
    - Manufacturers
    - Importers
    - Distributors
  - Implementation on national level by April 20, 2016
Obligations regarding user information

• Decision No 768/2008/EC ("template"):
  “Manufacturers shall ensure that XXX is accompanied by safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned.”
  “Importers shall ensure that XXX is accompanied by safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned.”

• Low Voltage Directive 2014/35/EU:
  „Manufacturers shall ensure that the electrical equipment is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned. Such instructions and safety information, as well as any labelling, shall be clear, understandable and intelligible.”

• Lifts, Directive 2014/33/EU:
  “Manufacturers shall ensure that the safety component for lifts is accompanied by the instructions referred to in point 6.1 of Annex I, in a language which can be easily understood by end-users, as determined by the Member State concerned. Such instructions, as well as any labelling, shall be clear, understandable and intelligible.”
Increasing Importance of Technical Documentation

• With regard to product safety, the European Legislation has set up more and more requirements on Technical Documentation, especially user information and strengthens the market surveillance.

• The user information is part of the product.

• As such, the user information and especially the safety related warning messages will be supervised more and more by the market surveillance authorities.
To dos for manufacturers / Importers

- The new legislation does not set up new requirements on products

- Organisational Measures
  - Ensure the conformity
  - Review user information and especially safety information
  - Taking corrective actions
  - Communication with market surveillance authorities
eDoc – Challenges: Digital Revolution

The Digital Revolution is changing Technical Communication

1. Smart Products
   User information will be embedded in the Products

2. Smart Services
   User information will be part of the service chain

3. Smart Production (Industry 4.0)
   User information will be standardized so that it can easily be exchanged or merged

4. Ubiquitous Data
   User information must be ready for all interfaces (adaptive, responsive) and accessible on the Internet of Things / on the Cloud

5. Social Challenges
   Technical Communicators should be ready for change

6. Cyber Security
   Technical Communicators should be sensitive regarding the security of user information and the safe handling of product related information
User Expectations regarding the use of communication products are changing

- „Just in Time“
- Context sensitive
- Individualized
- Responsive
- Multiple media
- ...

eDoc – Challenges
eDoc – Challenges: Legal Situation

• The Commission Regulation (EU) No 207/2012 of 9 March 2012 on electronic instructions for use of medical devices is the only regulation so far.

• The directives aligned with the New Legislative Framework missed the opportunity to promote user information in electronic form.

• Interpretation of non-binding guides on aligned directive:

  “However, it is not accepted (in other cases than those stemming from the view above) that electronic media or a hyperlink is sufficient as an alternative to information in paper copy. The end-user has an absolute right to quick and easy use of the apparatus they have purchased with no further obligations (such as access to the internet).”

The Reality: Survey on Printed vs. Electronic Documentation

- tekom Europe-wide survey
- More than 1,200 participants from all over Europe
Percentage of Printed Documentation in Relation to the Entire Documentation

- 40% of manufacturers surveyed provide 76%-100% of their documentation in printed form
- 75% of software companies indicate a percentage of less than 25% for print documentation in relation to the complete documentation
- 50% of the manufacturers surveyed provide more than 75% of their documentation in printed form
Overall sectors: 55% of companies surveyed indicate their percentage of printing costs in relation to the entire cost of documentation is less than 5%

55% of industrial companies indicate their printing costs are less than 10% of the entire cost of documentation

92% of software companies indicate their printing costs are less than 5% of the entire cost of documentation
Reasons for Printed Documentation

- **Statutory regulations**: 82.0%
- **Documentation can only be delivered in printed form**: 43.9%
- **Following customer request**: 40.2%
- **Customer expectations**: 14.7%
- **For technical reasons**: 4.2%
- **Documentation not accessible in electronic form**: 18.4%
- **Costs**: 14.6%
- **Tradition**: 27.1%
- **Still no changeover to electronic documentation**: 4.9%
Project eDoc: Results of the Expert Focus Group

19 experts who already use electronic instructions

- 14 participants from industry businesses in various sectors, e.g.:
  - Plant and power station construction, propulsion plants and assembly stations
  - Special machine construction, manufacturing systems, robotics, automation
  - Manufacturers of measuring, testing, control and navigation devices
  - Manufacturers of automobiles and automobile parts
  - Manufacturers of medical devices; laboratory devices, orthopedics
  - Manufacturers of air- and spacecraft, rail vehicle construction, shipbuilding
  - Energy/electricity providers
  - Manufacturers of pharmaceutical products, etc.

- 3 participants providing technical communication services

- 2 participants from other businesses/organizations
Delivery Methods – Already in Use

- paper
- PDF
- online
- product-integrated
- augmented reality
- audio
- video
- other electronic media
PAPER

PROS

Consumers
- Can be used anytime, without any technical requirements
- Easy reception / acquisition
- Familiarity with use
- Usability
  - Notes, flags and other markings
  - Familiar orientation and keyword search
  - Dirt resistance

Professional Users
- Certainty of compliance with legal requirements
- Usability
  - Also in difficult environments
- Creation of information
  - Standardized process
  - Existing structures

CONS

Consumers
- Poor User Experience
  - Not individualized
  - No context
  - Not always available
  - Difficult to be searched
  - Updates problematic
  - Very difficult to be corrected
  - Unclear Versioning
  - No use of modern media

Professional Users
- Already created user information in CCMS cannot be used effectively
- Poor User Experience
- Cannot be part of digital innovation
## Vision

<table>
<thead>
<tr>
<th>Old School Technical Documentation</th>
<th>New Paradigm: Intelligent Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All</strong> available information</td>
<td>The <strong>right</strong> Information</td>
</tr>
<tr>
<td><strong>Attached</strong> to the product</td>
<td>At the <strong>right</strong> place</td>
</tr>
<tr>
<td>For <strong>all</strong> Users</td>
<td>For the <strong>right</strong> person</td>
</tr>
<tr>
<td>For <strong>persistent</strong> use</td>
<td>At the <strong>right</strong> time</td>
</tr>
<tr>
<td>On <strong>paper</strong> and as <strong>PDF</strong></td>
<td>On the <strong>available</strong> device</td>
</tr>
<tr>
<td>Maybe <strong>online</strong></td>
<td>Using the <strong>best</strong> medium</td>
</tr>
</tbody>
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Vision

• Static publishing ➔ Dynamic Information Delivery

• Electronic delivery will be the future standard, paper will stay a use case amongst others, depending on
  • User expectations (consumers)
  • User requirements (business to business)
  • Legal requirements
Our Approach

• An approach for dynamic, context sensitive delivery of electronic user information could be based on the following steps (independent upon industry and product):

1. **Product lifecycle analysis**

2. **Audience analysis**
   (Consumers?, Professionals?, Technical knowledge and skills?, Special needs? ...)

3. **Use cases**
   (Context of use?, Goals?, Tasks?, User Experience?, Services needed? ...)

4. **Application of Failure Mode and Effects Analysis (FMEA) on electronic delivery of user information**
   (Availability?, Connectivity?, System failure? ...)

5. **Delivery concept**
   (Content?, Media concept?, Devices? ...)
Our request regarding legislation

What we need to make innovation a reality:

• Clarification of the legal requirements regarding paper form of technical documentation / user information, so that the use of paper can be reduced to situations where it makes still sense

• Opening of Comission Regulation (EU) No 207/2012 of 9 March 2012 on electronic instructions for use of medical devices for all kinds of products

• The guides for the aligned directives take up the digital revolution and do not miss the opportunity again to promote user information in electronic form.
Competencies for Technical Communication

- tekom has developed a cross-industry Competence Framework for Technical Communication.
- The Competence Framework provides clear, basic guidance for companies, employees, young professionals and people interested in the profession by helping them make the right decision regarding job selection, career development, further education and training, training curricula, job assessment, etc.
- The profiling tool is now free available online in English.
Throughout Europe is a gap between the number of students graduating in technical communication and the number of open jobs in this field.

The demand for formally trained technical writers is high.

Only few European universities offer programs in technical communication and the occupational profile of “technical communicator” is not explicitly represented.

TecCOMFrame is a Europe-wide project involving eight project partners from universities in Belgium, Denmark, France, Germany, Ireland, Netherlands, Romania and Poland. The project engages many stakeholders from industry and service companies as well as from other European universities.

The project will deliver the TecCOMFrame as an academic competence framework for education and training in technical communication across Europe.

...find more information
Contact and More Information

European Association for Technical Communication – tekom Europe e.V.

Rotebühlstr. 64
70178 Stuttgart
Germany

m.fritz@tekom.de
c.klumpp@tekom.de

more information....
- tekom Belgium
- Membership
- Competence Framework
- Profiling-Tool