

Dissemination of Content Reutilization Practices in the German and U.S. Book Publishing Industry

Alexander Benlian

Christoph Grau

Thomas Hess

Ludwig Maximilians University Munich

Yale M. Braunstein

University of California, Berkeley

ABSTRACT According to researchers and managers in the media industry, content reutilization represents a promising management concept to reduce production costs and to generate additional revenue streams. The article compares content reutilization practices of German and U.S. book publishers and exploring potential sources of differences in the reutilization behaviour. Presently, almost two out of three publishing companies apply content reutilization as management instrument on a global level. In the near future, a trend to even higher diffusion rates (up to 75%) can be observed. Nevertheless, from a country-specific perspective, significant variances exist regarding the actual and future adoption level. The most significant explanatory factor for the difference in the level of dissemination between Germany and the U.S. represents top management involvement.

KEY WORDS: content reutilization, adoption/diffusion of practices, book publishing

Academia and practice have recently attributed a high potential to the management concept of content reutilization in reducing production costs and generating new revenues. Although numerous conceptual articles (Owen & Wildman 1992; Ringlstetter & Vizjak 2001; Shapiro & Varian 1999; Schulze 2005; Werbach 2000) and case studies (Schulze et al. 2004)

Copyright © 2006 Journal of Media Business Studies. Alexander Benlian, Christoph Grau, Thomas Hess, and Yale M. Braunstein, "Dissemination of Content Reutilization Practices in the German and U.S. Book Publishing Industry," 3(2):41-61 (2006).

have already dealt with the different forms and performance implications, general findings about the actual adoption rate of reutilization practices in the media industries are still lacking. Besides this lack in empirical examination, previous studies have focused solely on single-country phenomena. This article attempts to address both research gaps by evaluating the application of content reutilization practices by means of an empirical study in German and U.S. book publishers.

The overarching goal of this study is to generate practical and usable findings about the dissemination of content reutilization as management concept. First of all, the assessment of the adoption rate of content reutilization practices in present and future gives companies the opportunity to benchmark their position with the industry average which may deliver concrete implications for further investments in content, personnel and/or IT. Furthermore, by exploring discriminating factors of differences in the content reutilization behavior in Germany and the U.S., managers may become aware of relevant levers to pull in order to increase the benefits of this management concept. To investigate the dissemination of content reutilization practices, this study takes up an exploratory and descriptive approach commonly used in research studies that examine the adoption of management concepts (e.g., Rigby 2001 for a general overview on the dissemination of several management concepts). This is in contrast to rather theory-driven research designs that draw on classical diffusion literature to examine the adoption of technology innovations (e.g., Ranganathan et al. 2004 for the assimilation of Web-technologies or Chwelos, Benbasat and Dexter 2001 for the adoption of EDI).

The overall organization of the article is divided into three sections. While the first part gives a short introduction into the concept and forms of content reutilization practices (CRP), the second section presents the research methodology applied in this study. Finally, section three describes the results of CRP adoption on an aggregate as well as on a country-level. In addition to these rather descriptive results, potential sources of variance between the adoption levels in German and U.S. publishers are explored and discussed.

CONCEPT OF CONTENT REUTILIZATION

The following section is divided into two areas of interest. First we give a short introduction into the general idea and the economics of content reutilization. Then, we describe different practices of content reutilization illustrating each of them with an example.

Idea and Economics of Content Reutilization

The production of media content can generally be characterized by a high fixed cost base incurred during the production of the original copy and

relatively low reproduction costs (Albarran 1996; Picard 1986). As initial investments in the first copy of a content product are very high, media companies usually try to recoup these fixed costs by maximizing the number of sold copies via several channels. Another specificity of media products is the non-rivalry in their consumption, which means that the consumption of a media product doesn't diminish its value to other customers, as can usually be observed in the physical world (e.g., the usage of a car diminishes the value of the car to other customers) (Albarran 1996; Picard 1986). Thus, since no devaluation is taking place, the multiple usage of content is also furthered on the customer side.

Both characteristics can be considered as the foundation of the idea to reuse content on the production- and market-side of a media company. While in case of production-side content reutilization, a module is incorporated in at least two different bundles, market-side content reutilization generates at least two different media products from a bundle (Schulze 2005). Production-side content reutilization relies on economies of scale, as revenues from various media channels can be spread over fixed costs incurred in the production of original content modules leading to a degression of overall unit costs (Panzar & Willig 1977). On the market-side, economies of scope can be exploited by offering customized media products at joint costs that are lower than costs that would be incurred for operating different output channels on their own (Panzar & Willig 1981). Moreover, the growing potential of customizing media products on a high scale (so-called 'mass customization') enables companies not only to reduce production costs, but also to raise customer loyalty and skim off additional customer rents (Pine 1993).

With the advancement of digitizing content and channels in the media industry, the concept of content reutilization has increasingly moved into the spotlight, as potential benefits of repurposing content appear to be even higher. On the production side, digital and modular production technologies promise to bring expenses for content duplication down to nearly zero marginal costs (e.g., XML) leading to higher contribution margins to cover fixed costs. In addition, more efficient access mechanisms (i.e., enhanced metadata concepts such as ontologies in the context of the Semantic Web) increase the visibility, transferability and usage of various forms of content across different media channels stimulating demand and additional sales. From a market perspective, new digital distribution channels are emerging (e.g., Internet, mobile phones, iTV, etc.) that demand media-specific product offerings (e.g., Video-On-Demand). These market-pull dynamics, in turn, increase the opportunities for new forms of content reutilization which may be able to address the additional demand in a cost-effective way.

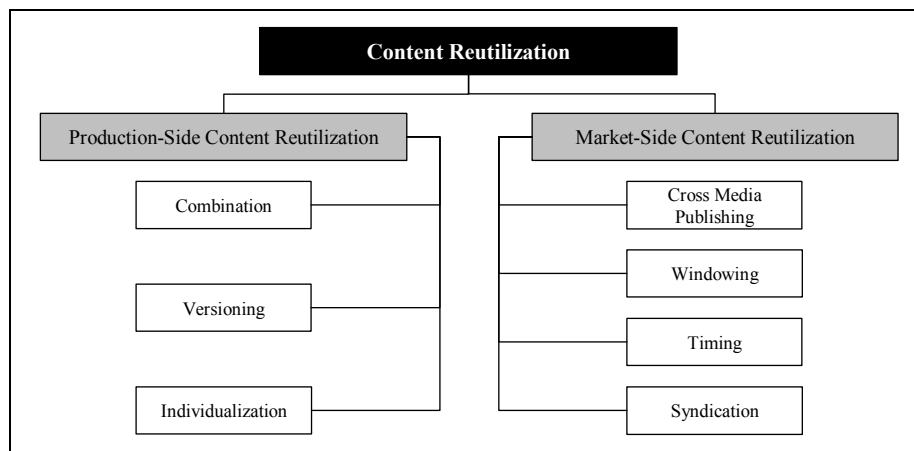
In the face of a more compelling logic for content reutilization, it seems to be crucial to understand the characteristics of different content reutilization practices and their current and future potential diffusion in the media industry. While the different forms of content reutilization are

described in the next chapter, the research design and results of this adoption study follow in subsequent chapters.

Practices of Content Reutilization

According to Schulze, seven different sub-forms of content reutilization can be distinguished (Schulze 2005). Figure 1 illustrates both production- and market-side content reutilization practices.

Figure 1: Practices of Content Reutilization



On the production-side of the content workflow, combination, versioning and individualization can be identified as different forms of content reutilization.

Combination can be defined as the integration of a content module in at least two different bundles. Variations of intra- and inter-medial combination can be distinguished by their dependence of the underlying media carrier. In the case of intra-medial combination, a module enters different bundles that are assigned to the same type of media carrier in the distribution stage. A possible example for this alternative is the use of an article in a daily newspaper issue and in a special newspaper edition of classic articles. Inter-medial combination, on the other hand, can be characterized by assigning the bundles to different types of media carriers. An example is the publication of an article in both a print- and online edition of a newspaper (Schumann 2003).

In contrast to combination, versioning focuses on the modification of particular purchase-decision criteria of a media product. Alternative product offerings can differ due to modifications in the scope or number of features (quantitative versioning) or in the presentation format (qualitative versioning). In case of quantitative versioning, the same content modules partially enter comparable bundles, but to a different extent and in a different level of detail. To cite an example, one may

think of the utilization of film material in different DVD-products in terms of a standard offering and a premium offering with added bonus material (e.g. “making of” or “director’s cut”). Content bundles arising from qualitative versioning include identical modules, but differ in the presentation format. Such forms can, for instance, be found in the book production where identical content is offered in form of a standard version as well as a premium collector’s edition (Shapiro & Varian 1999).

The objective of individualization is the bundling of several content modules tailored to groups or even down to the level of the individual. Group-specific individualization is performed by flexibly adding customized modules to the standard core of a media product and can, for example, be observed in newspapers where general news in the front section, which is based on national and international coverage, is complemented by a local section with articles addressing regional interests. Person-related individualization stands for the bundling of modules according to preferences of an individual customer and is applied for instance in the context of e-mail-based newsletters (Hess 2005).

As far as market-side CRPs are concerned, cross media publishing, windowing, timing and syndication can be distinguished.

Windowing is a form of content reutilization where media products, which are derived from the same original content bundles, are repurposed successively over different media channels, so-called ‘media windows’ (Werbach 2000). Windowing can primarily be observed in the broadcasting business when one and the same content bundle is reutilized subsequently in cinemas, via VCRs, Pay- and Free-TV. In the print industry, the publishing of hardcover and softcover books is another example to demonstrate the subsequent reuse of content (Lehmann & Weinberg 2000).

By contrast, cross media publishing characterizes the simultaneous offering of the same media product via different channels, as can, for example, be observed with radio stations that provide their audible content via traditional broadcast and Internet (‘WebRadio’). Another example are newspapers that publish articles in the Internet which are (partially or often to a great extent) identical to the print versions (Litman 2000; Owen & Wildman 1992).

The discriminating feature of timing is the time-dependent reuse of content within the same media channel. If content bundles can be characterized by a rather slow devaluation speed, which means that content is not becoming obsolete quickly (e.g., documentary or background content on a special topic), they lend themselves to a sequential recycling of content aiming at the same target group (‘sequential timing’). This strategy is, for example, used by TV stations which frequently broadcast serials at regular intervals. For product offerings with faster devaluation speeds (e.g., newspaper articles), however, the CRP of simultaneous timing is a better option for reutilizing content. Here, content is offered simultaneously via different

access options like in database archives of newspaper publishers (Zerdick et al. 2000).

While cross media publishing, windowing and timing refer to different variations in the selling of media products to end consumers, syndication-based reutilization focuses the multiple resale of content (and property rights) to at least two commercial customers (so-called ‘content distributors’) who in turn distribute the products to interested recipients (Werbach 2000). If the relationship between content provider and content distributors is based on an electronic network, this form of content reutilization is called online content syndication (Anding & Hess 2002). Otherwise, it is offline content syndication. Both forms can, for instance, be found in the relationship between news agencies and newspaper publishers. News agencies often provide different publishers with the same content bundle (e.g., comic strips) that are integrated into the publisher’s overall product offering (e.g., newspaper or Internet website).

METHODOLOGY

In the following sub-sections, the methodological groundwork of the research study is presented. First we describe the central research questions of this study, and then we turn to questionnaire design. Finally, we discuss data collection and data analyses.

Research Questions

As no empirical pre-studies have been performed on the topic of content reutilization before to prove or reject the presented conceptual framework, the objective of the study is to uncover first insights into the actual adoption of different forms of content reutilization. In addition to the examination of different content reutilization practices in general, the study compares two different countries (Germany and USA) with regard to their content reutilization behavior for country-specific differences. Furthermore, we explore reasons why the adoption rates of those countries vary. The following research questions state clearly the research objectives pursued in this study:

RQ1: What is the adoption rate of individual content reutilization practices in media companies?

RQ2: How do German and U.S. media companies differ with regard to the adoption of individual content reutilization practices?

RQ3: What are potential reasons for different levels of content reutilization adoption?

To address the research questions above, an exploratory-descriptive research methodology was chosen. Based on a written questionnaire, German and U.S. book publishing companies were surveyed on their

respective content reutilization behavior. As broadcast and print companies enormously differ in the types of content and the way content is managed, the study focuses book publishing firms for the sake of validity and clarity. In future research projects, the results of this study should be extended to newspaper and magazine companies.

Questionnaire Design

The development of the questionnaire and the ongoing improvement of the content and face validity of the measurement items were based on a literature review and on interviews with experts of the German Association of Book Publishers. The questionnaire comprised three parts: constructs to cover content reutilization practices, potential explanatory factors to capture variations in the adoption of content reutilization practices, and socio-demographic variables.

All main forms of content reutilization (i.e., versioning, individualization, combination, windowing, cross media publishing, timing, syndication) were measured on a binary scale (e.g.: Do you successively utilize content in different media channels („windowing“)). Specialized sub-forms of content reutilization activities were omitted for the sake of simplicity. To integrate a time component into the study, the question was posed for past (two years ago: 2003-2004), present (the period in which the research was undertaken: 2005) and future (two years from now: 2006-2007) content reutilization endeavours. In order to explore correlations with content reutilization practices and thus obtain insights into potential explanatory factors, variables on the supply- and demand-side were integrated into the survey. On the supply-side, top management support, organizational structure, content portfolio structure, editorial staff qualification and information technology were included into the investigation. On the demand-side, customer acceptance and marketing commitment were taken into consideration. The extent to which these variables support content reutilization endeavours in the respondent's publishing firm was measured on a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree”, with “neither agree nor disagree” as a mid-point. Finally, respondents had to indicate socio-demographic data (e.g., organization size, kind and number of covered publishing segments and media products) in order to find further potential sources of variance in the content reutilization behaviour. Each supply-, demand-side and socio-demographic variable was operationalized with three measurement items that were derived from a literature review. After assessing and proving sufficient convergent and discriminant validity of the measurement models, an index of each variable was formed on the basis of the three equally weighted measurement items.

As the concept of content reutilization is a strategic and technology-driven management concept, the IS executives of book publishing firms were chosen as the target group to answer the questionnaire (e.g., Ahituv

et al. 1989), which is also in accordance to prior adoption studies. In case that the publishing company had no IS executive the questionnaire was forwarded to the CEO. Due to the challenges entailed in achieving sufficient response rates and common practice in comparable empirical research studies, a single informant per firm was addressed during the data collection phase (Seidler 1974). In order to minimize any potential measurement error that may result from the use of a single informant, the methodological suggestions by Huber and Power were followed (Huber & Power 1984).

Data Collection and Analysis

In cooperation with the German Association of Book Publishers, the questionnaire was sent to 450 randomly selected German and 450 randomly selected U.S. publishers between May and July 2005. In total, 76 book publishers (31 German and 45 U.S. publishers) participated at the survey resulting in a response rate of 8.4%.

In order to obtain some insights into the organization size of the surveyed book publishers, calculations on the number of editorial units and editors were executed. Approximately 35.5% of the publishing companies operated a single editorial unit, 25.0% two or three and 39.5% more than three with up to a maximum of 21 editorial units. Half of the book publishers employed up to 50 editors, 21.5% between 51 and 100 and 27.2% more than 100 editors. Besides organization size, the sample was analyzed with regard to the diversity and breadth of its product offerings. About a third of the surveyed book publishers covered up to three book segments (e.g., scientific books, child books, text books, encyclopaedias, etc.), 35.1% between four and five and 31.1% more than five book segments. A comparison of the research sample's structural composition with statistics in industry reports of the German and U.S. Association of Book Publishers showed sufficient external validity. That means that the small sample represents the reality of the broader group of book publishers.

The data was collected, consolidated, codified, and analyzed using the statistical package for social sciences (SPSS, Version 12.0). For the descriptive analysis, the adoption rates of content reutilization practices were calculated by counting publishing firms that employed CRPs and those that did not. T-tests for independent means were applied to investigate differences in CRPs and potential explanatory factors that were assumed to lead to different CRPs. A 95% level of confidence was selected for the t-tests performed.

RESULTS

We start with an aggregated overview of CRP diffusion in German and U.S. publishing firms. The descriptive results are then further broken down to the individual countries in subsequent sub-sections. Finally,

reasons for country-related differences in the adoption level of CRPs are explored.

General Findings

With regard to the overall sample (n=76), a growing diffusion among book publishers can be found for all forms of content reutilization indicating that publishers lend more weight to measurements that aim at repurposing and exploiting content throughout their organization and media channels (Figure 2 and Table 1).

On the level of CRPs on the production-side, individualization and versioning of content show relatively low adoption rates following similar development paths. In comparison to individualization and versioning, the combination of content modules has been a more widely-used CRP so far and, according to the respondents, will maintain its prevalence also in the future, where it will even outstrip common forms of CRPs on the market-side.

Windowing and cross media publishing are the most important forms of content reutilization at present and also in the future. While windowing has been the dominate form in the past, cross media publishing has caught up to the level of windowing at present. Content syndication is the least applied market-side CRP at present. However, in contrast to stagnant timing-based CRPs, an upward trend in the adoption of content syndication practices can be observed. More than two thirds of the responding publishers indicated that they will employ content syndication as a form of market-side content reutilization in the future.

While production-side CRPs show a rapid growth from a relatively low starting level in the past (adoption rate of 38% on average), CRPs on the market-side have been much more widespread in the publishing industry so far (adoption rate of 60% on average in the past and 70% in the present), but show a slowing growth rate for the future. As can be seen from Table 1, the declining adoption growth rates of market-side CRPs point to diffusion saturation, whereas production-based CRPs maintain a two-digit growth. An exception to the downward trend in the growth of adoption of market-side CRPs is content syndication, whose dissemination among publishing firms has tripled (from 3% to 9%).

Figure 2: Adoption Rates of Content Reutilization Practices among German and American Book Publishers

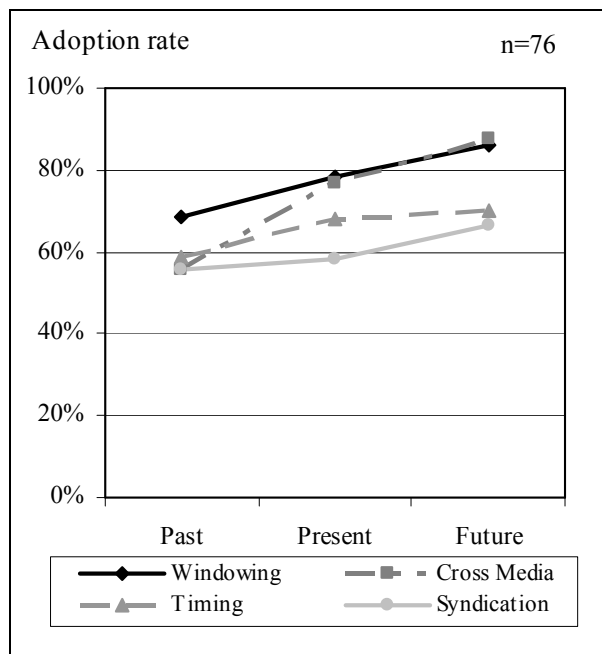
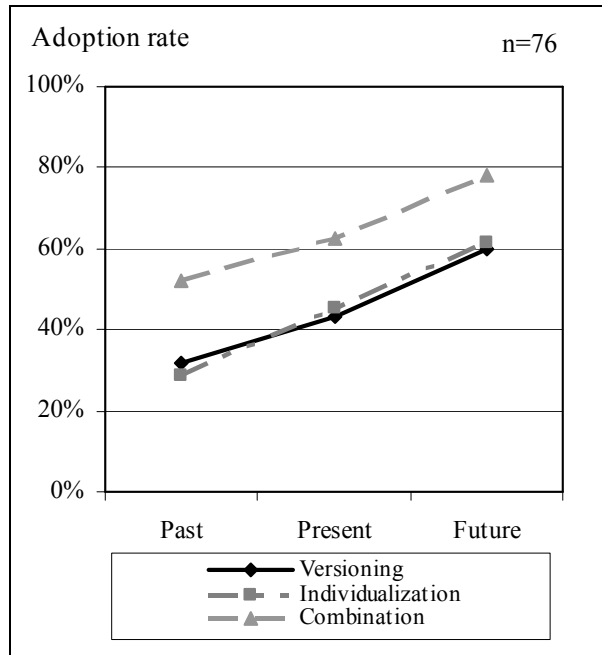


Table 1: Adoption Rates and Adoption Growth Rates for Content Reutilization Practices (Germany and USA)¹

Average adoption rates across all content reutilization practices		
Past	Present	Future
50% (253 of 505)	62% (320 of 518)	73% (367 of 504)
Adoption growth rates for each content reutilization practice		
	From Past to Present	From Present to Future
Versioning	11%	16%
Individualization	17%	16%
Combination	11%	15%
Windowing	10%	8%
Cross Media Publishing	21%	10%
Timing	9%	2%
Syndication	3%	9%
Average Growth Rates	12%	11%

Findings in Germany

Broken down to country-specific diffusion results, German book publishers show relatively similar diffusion rates as in the aggregated perspective (Figure 3 and Table 2). The adoption of CRPs on the production-side started from a low level in the past (around 39%), but shows a strong growth, which, according to the respondents, is going to result into a doubling in the absolute diffusion rate (79% on average). Although the positive diffusion trend of market-side CRPs among German book publishers is comparable to the overall sample, two exceptions can be observed. Cross media publishing is by far the most dominant CRP in Germany at present and in the future, which is underpinned by a constant difference of 11% in the adoption rate to windowing. Another interesting deviation to the results in the overall sample is timing-based CRPs that promise a strong two-digit growth in the future, even if they are by far the least widespread CRPs in Germany.

It is also interesting to note that a downward trend can be observed with regard to the growth rates of nearly all CRPs in Germany (exceptions are combination and content syndication, see Table 2).

¹ The average adoption rate is calculated by dividing all positive answers by all valid answers for past, present and future content reutilization practices.

Figure 3: Adoption Rates of Content Reutilization Practices among German Book Publishers

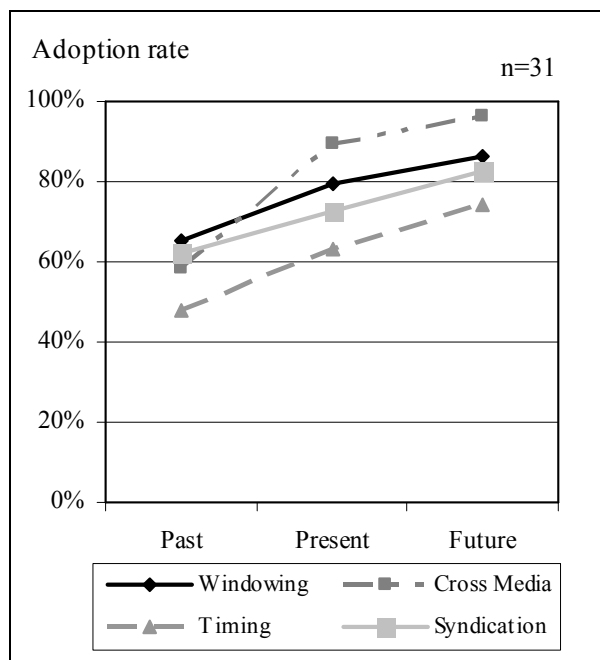
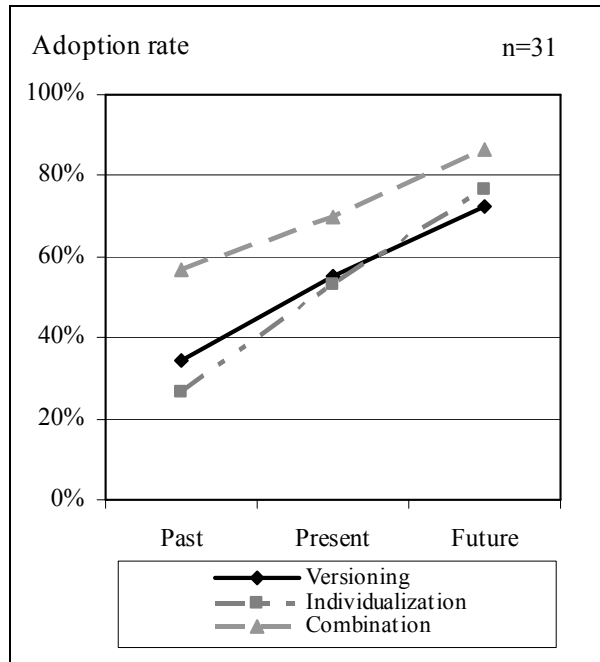


Table 2: Adoption Rates and Adoption Growth Rates for Content Reutilization Practices (Germany)

Average adoption rates across all content reutilization practices		
Past	Present	Future
50% (105 of 210)	69% (145 of 210)	82% (173 of 210)
Adoption growth rates for each content reutilization practice (Germany)		
	From Past to Present	From Present to Future
Versioning	21%	17%
Individualization	27%	23%
Combination	13%	17%
Windowing	14%	7%
Cross Media Publishing	31%	7%
Timing	15%	11%
Syndication	10%	10%
Average Growth Rates	19%	13%

Similar to the overall sample, the future adoption growth rates of production- and market-side CRPs differ in their scope. While production-side CRPs maintain a two-digit growth, the diffusion of market-side CRPs decreases, and drops in some cases even tremendously. The most striking decline in growth rate can be found regarding cross media publishing. Starting from an adoption growth rate of 31% the diffusion speed stalls to a growth level of 7%.

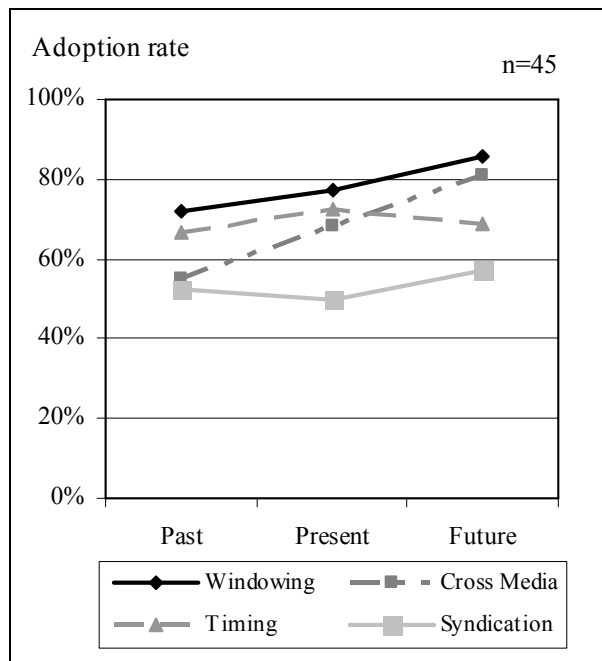
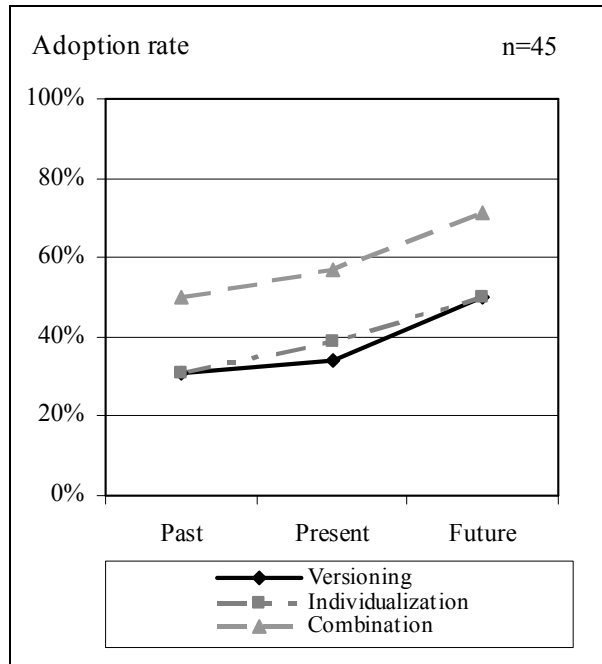
Findings in the U.S.

While the average adoption rates across all CRPs are equivalent for German and U.S. book publishers in the past, the diffusion of CRPs in the USA does not reach the absolute diffusion level in Germany at present and in the future. However, the average growth rate is decreasing in Germany, whereas it is rising slowly in the U.S.

Versioning and individualization once more follow a quite similar development path on a low level, while the adoption rate of combination exceeds the other two production-side CRPs by around 20% (Figure 4 and Table 3).

The traditional CRP in the print sector, windowing, represents the dominant reutilization form in the. Cross media publishing, however, will nearly close the gap in the future, as both CRPs just differ by a meagre 5%. After taking a small dip in the diffusion rate from past to present, content syndication resumes its diffusion growth, ending up at an estimated adoption rate of 57%.

Figure 4: Adoption Rates of Content Reutilization Practices among U.S. Book Publishers



As mentioned before, the diffusion speed across all CRPs in the past was sizeably slower than in Germany (Table 3). Except for cross media publishing, all other CRPs showed only one-digit growth rates. This is in contrast to future developments where all adoption rates of CRPs are predicted to rise. It is noteworthy that the adoption of production-side CRPs is once again forecasted to grow steeper than the adoption of market-side CRPs. This is certainly also due to the reason that production-side CRPs start from a significantly lower diffusion level and are still far from a saturation cap.

The only exception to growing adoption rates is timing. While its adoption has been growing relatively slowly up to the present, U.S. publishers see less future potential for this specific form of content reuse. Cross media publishing shows a constant diffusion in the U.S. book publishing industry with an exceptional two-digit growth among all market-side CRPs.

Table 3: Adoption Rates and Adoption Growth Rates for Content Reutilization Practices (USA)

Average adoption rates across all content reutilization practices (USA)		
Past	Present	Future
51% (151 of 295)	57% (175 of 308)	66% (195 of 294)
Adoption growth rates for each content reutilization practice (USA)		
	From Past to Present	From Present to Future
Versioning	3%	16%
Individualization	8%	11%
Combination	7%	15%
Windowing	5%	8%
Cross Media Publishing	13%	13%
Timing	6%	-4%
Syndication	-2%	7%
Average Growth Rates	6%	9%

Exploration of Potential Discriminating Factors

To explore reasons for the differences of CRP adoption levels between German and U.S. book publishers, t-tests were performed on potential discriminating factors. As mentioned before, top management support, organizational structure, content portfolio structure, editorial staff qualification and information technology were included as potential discriminating factors of the supply-side. On the demand-side, customer acceptance and marketing commitment were taken into consideration as potential sources of variance. Table 4 shows the results of the t-tests, comparing the means of German and U.S. book publishers' answers to the alignment of the respective factors towards the support of CRPs.

Table 4: Extent of Alignment of Factors towards Content Reutilization Practices

Factor	Germany	USA	Parameters	
	Mean*		t-value	Significance
Supply-side factors				
Top Management Support	4.14	2.10	10.78	0.00
Organizational Structure	2.42	2.97	2.10	0.04
Content Portfolio Structure	3.31	2.36	4.56	0.00
Editorial Staff Qualification	2.98	2.66	1.48	0.14
Information Technology	2.90	2.86	0.14	0.89
Demand-side factors				
Customer Acceptance	3.80	2.50	7.16	0.00
Marketing Commitment	2.60	3.04	2.11	0.04

* 5-point Likert-type scale ranging from 1="strongly disagree" to 5="strongly agree"

From an absolute point-of-view, the average values for the alignment of production- and market-side factors appear to be low, as the majority of the values are below the middle of the 5-point Likert-scale. This indicates that there is either some resistance or still a lot of potential to improve the alignment of influencing factors towards CRPs.

From a relative perspective, however, all factors proved to significantly discriminate German from U.S. book publishers except for the alignment of editorial staff qualification and information technology towards CRPs. While the fit of the organizational structure and the marketing commitment with content reutilization activities were supported more actively by U.S. than by German publishers, all other factors were pushed to a greater extent by German publishers. In particular, the support of the top management and the content portfolio structure on the supply-side and customer acceptance on the demand-side turned out to be the most salient distinguishing factors which should be taken up for a closer examination:

Top Management Support Content reutilization is a management concept that is based on the support of almost all functions and divisions of a company, since it aims at deploying content over different media channels with accompanying investments in human capital, information technology and organizational structures. For that reason, it appears to be necessary that the implementation of CRPs is fostered by the strategic backing of the top management. This argument finds evidence in the discrepancy of top management support in German and U.S. book publishing companies and respective CRP adoption levels.

Content Portfolio Structure The success of content reutilization hinges upon semantic and technical prerequisites regarding the underlying content base. While from a semantic point-of-view, content seems to be more suitable for reutilization if it is a self-contained and easily combinable module (e.g., a photo with a portrait of Franz Beckenbauer can be deployed in a business or sport context), from a technical perspective, the layout, structure and the content itself ideally should be stored separately, only connected via logical links. According to the descriptive results, German book publishers show a stronger alignment of the (semantic and technical) content structure towards CRP than U.S. book publishers. In addition, German publishers offer significantly more types of media products (i.e., not only books but, for instance, also magazines, newspapers, DVDs or catalogues) than U.S. publishers (on average 5.41 for German and 3.62 for U.S. publishers; t -value = 5.19, $p < 0.00$) indicating that identical or similar content products can potentially be disseminated across a larger set of output channels. Based on these findings, a higher sophistication in the structuring and distribution of content seems to be another source of explanation for the variance in the adoption level of both countries.

Customer Acceptance As the descriptive results of this research study point to a significantly higher customer acceptance towards CRPs in Germany than in the U.S., the higher CRP adoption level in German book publishing organizations may also be attributed to pull factors on the demand-side. Since the implementation of CRPs usually paves the way to more differentiated and more customized products, German customers appear to be not only more receptive to individualized offerings, but also more demanding with regard to the parallel usage of different media channels (e.g., print and Internet edition of daily newspaper). Although this can just be speculation as no data were collected to corroborate this line of argument, macro data on the daily usage of media (e.g., average daily media time budget) may lend themselves to be an appropriate proxy for different CRP activation levels of German and U.S. media consumers. German consumers allocate a media budget of about 65 minutes to different print media per day (Ridder & Engel 2005), whereas U.S. citizens spend only about half of the time (32.8 minutes) with the consumption of print media (Finberg 2005). Altogether, the higher acceptance level of German compared to U.S. consumers towards diverse media products and channels seems to play an important role for the adoption of CRPs in publishing organizations.

SUMMARY AND FURTHER RESEARCH

This research has attempted to examine the adoption of content reutilization practices in the German and U.S. book publishing industry and potential reasons for deviations between both countries. Both the

aggregate and country-specific results show a growing diffusion for nearly all forms of content reutilization. Combination on the production-side as well as windowing and cross media publishing on the market-side are the most widely-applied CRPs in present and future. However, while production-side CRPs have still increasing adoption growth rates, the rates of market-side CRPs are declining indicating saturation in the adoption in the near future.

In Germany, the absolute diffusion results are almost comparable to the aggregate perspective. Combination, cross media publishing and windowing are the prevailing forms of content reutilization. The most interesting deviation from the aggregate perspective, however, can be observed with regard to the adoption growth rates. While on a global perspective, this downward trend is restricted only to the market-side, in German publishing organizations both production- and market-side CRPs are going to be applied to a lesser degree in the future. In contrast to German publishers, the average (absolute) CRP adoption rates of U.S. publishers cannot match the German diffusion level. While the present rates differ by 12%, the gap widens to 16% in the future. However, increasing growth rates for almost all CRPs indicate that U.S. print publishers are planning to expand their content reutilization practices and to catch up in the future.

Several factors on the supply- and demand-side of a publishing organization were explored as potential explanatory sources of variance. Top management support, content portfolio structure and customer acceptance turned out to be the most promising reasons for why the CRP adoption level in Germany differed significantly from the adoption level in the United States. Although the statistical method used in this study does not admit to build a causal relationship between the explanatory factors and the adoption level, valuable insights are nevertheless be gained into the strategic, organizational and technological support surrounding content reutilization activities. In order to propel the diffusion of CRPs in organizations, business managers may influence the levers identified in this study by securing top management support right from the start, by optimizing the media product mix and structure and by increasingly luring customers via different simultaneous or subsequent product offerings.

From an academic perspective, two findings are relevant. First, the classification framework of content reutilization practices turned out to be perceived as relevant and useful for practitioners. This differentiated picture of content reutilization can be used as common terminological foundation for future research endeavours. Second, the research study provides relevant success factors for the diffusion of content reutilization practices on a generic level. Additional research activities can draw on these findings and break them down to a more specific level. For example, the concrete implementation of top management support may be investigated with regard to the planning of formats, the organization

of decision rights and incentive systems, as well as the monitoring of joint reutilization activities.

In future projects, the findings from this study should be extended to other segments of the media industry, i.e., to the newspaper, magazine, and broadcasting sectors. Moreover, professional, economic, sociological, and/or cultural factors should be included in future research endeavours to explain variances in content reutilization practices in different countries. Additionally, more sophisticated statistical methods should be applied to dig deeper into the explanation of differences between the adoption of CRPs in German and U.S. book publishing companies. Although t-tests are a valuable means to show differences in the attitude or behaviour of respondents, they are not capable of uncovering causal relationships between variables. Regression analysis would therefore represent a much better instrument for coming research studies as potential control variables could explicitly be incorporated into the research model.

Finally, further research on content reutilization has to take up the trade-off between increased cost savings due to economies of scale and scope and decreased revenue potentials because of a reduction in content variety. Rather than solely maximizing the level of content reutilization activities, a balanced approach that incorporates both commercial and customer interests promises to be more successful. In this regard, the development of optimization models that integrate both sides of the coin could provide further insights into the way content is optimally reused.

REFERENCES

- Ahituv, N., Neumann, S. and Zviran, M. (1989). Factors affecting the policy for distributing computing resources. *MIS Quarterly*, 13, 388-401.
- Albarran, A. B. (1996). *Media economics. Understanding markets, industries and concepts*. Ames: Iowa State University Press.
- Anding, M. and Hess, T. (2002). Online Content Syndication - A critical Analysis from the Perspective of Transaction Cost Theory. *Proceedings of the Xth European Conference on Information Systems*. Danzig, 551-563.
- Chwelos, P., Benbasat, I. and Dexter, A. S. (2001). Empirical Test of an EDI Adoption Model. *Information Systems Research*, 12(3), 304-321.
- Finberg, H. I. (2005). Our complex media day. Retrieved November 20, 2005, from Poynter-online Website: http://www.poynter.org/content/content_view.asp?id=89510.
- Hess, T. (2005). Media Companies between Multiple Utilisation and Individualisation: an Analysis for Static Contents. In A. Zerneck et al. (Eds.), *E-Merging Media. Communication and the Media Economy of the Future* (pp. 57-74). Berlin et al.: Springer-Verlag.

- Huber, G. P. and Power, D. J. (1985). Retrospective reports of strategic-level managers: guidelines for increasing their accuracy. *Strategic Management Journal*, 6, 171-180.
- Lehmann, D. R. and Weinberg, C. B. (2000). Sales Through Sequential Distribution Channels: An Application to Movies and Videos. *Journal of Marketing*, 64(3), 18-33.
- Litman, B. R. (2000). The Structure of the Film Industry – Windows of Exhibition. In A. N. Greco (Ed.), *The Media and Entertainment Industries: Reading in Mass Communications* (pp. 99-121). Boston et al.: Allyn & Bacon.
- Owen, B. S. and Wildman, S. S. (1992). *Video Economics*. Cambridge: Harvard University Press.
- Panzar, J. C. and Willig, R. D. (1977). Economies of Scale in Multi-Output Production. *Quarterly Journal of Economics*, 91, 481-493.
- Panzar, J. C. and Willig, R. D. (1981). Economies of scope. *American Economic Review*, 71, 268–272.
- Picard, R. G. (1989). *Media economics. Concepts and issues*. Newbury Park et al.: Sage Publications.
- Pine, B. J. (1993). *Mass Customization - The New Frontier in Business Competition*. Boston: Harvard Business School Press.
- Ranganathan, C. et al. (2004). Assimilation and Diffusion of Web Technologies in Supply-Chain Management: An Examination of Key Drivers and Performance Impacts. *International Journal of Electronic Commerce*, 9(1), 127-161.
- Ridder, C.-M. and Engel, B. (2005). Massenkommunikation 2005: Images und Funktionen der Massenmedien im Vergleich. *Media Perspektiven*, 9/2005, 422-448.
- Rigby, D. (2001). Management tools and techniques: a survey. *California Management Review*, 43(2), 139–160.
- Ringlstetter, M. and Vizjak, A. (2001). The Only Way for the Media Industry to Grow and Profit is with Content. In A. Vizjak and M. Ringlstetter (Eds.), *Media Management – Leveraging Content for Profitable Growth* (pp. 3-13). Berlin et al.: Springer-Verlag.
- Schulze, B. (2005). *Mehrfachnutzung von Medieninhalten - Entwicklung, Anwendung und Bewertung eines Managementkonzepts für die Medienindustrie*. Lohmar, Köln: Josef Eul Verlag.
- Schulze, B., Hess, T. and Eggers, B. (2004). The Internet's Impact on Content Utilization Chains: An Exploratory Case Study on Leading Publishers in Germany. *The International Journal on Media Management*, 6, 12-22.

- Schumann, M. (2003): Möglichkeiten der Mehrfachverwertung von Inhalten bei Medienunternehmen - technische, organisatorische und ökonomische Betrachtung. In D. Ehrenberg and H.-J. Kaftan (Eds.), *Herausforderungen der Wirtschaftsinformatik in der Informationsgesellschaft* (pp. 193-209). Leipzig: Wissenschaftsverlag Edition am Gutenbergplatz Leipzig.
- Seidler, J. (1974): On using informants: A technique for collecting quantitative data and controlling for measurement error in organizational analysis. *American Sociological Review*, 39, 816-831.
- Shapiro, C. and Varian, H. R. (1999). *Information Rules - A Strategic Guide to the Network Economy*. Boston: Harvard Business School Press.
- Werbach, K. (2000). Syndication - The Emerging Model for Business in the Internet Era. *Harvard Business Review*, 78(3), 85-93.
- Zerdick, A. et al. (2000). *E-Economics - Strategies for the Digital Marketplace*. Berlin et al.: Springer-Verlag.

