



# U CONNECT 07

## J9: Making the Transition From Industry to Global Standards

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Review Group



BarCodes and eCom™



ROSETTANET



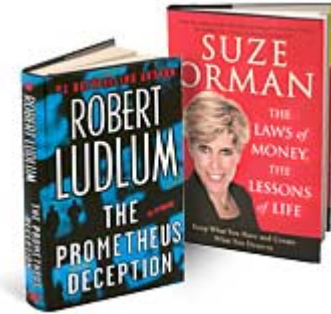
# Overview

- Existing industry-specific standards are a challenge when an industry considers transition to GS1 System compliant standards
- As the book industry has made this transition:
  - What standards were originally established?
  - Why were those standards chosen?
  - What is the situation today?
  - What are the benefits of making the transition?

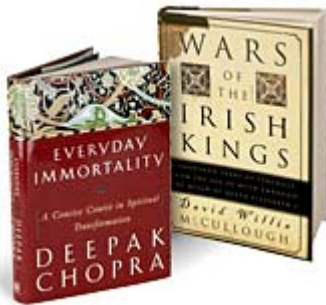
# Agenda

- Motivation for the Transition
- Industry Introduction
- Book Industry Study Group
- Product Marking
- Supply Chain
- Metadata
- Where We Are Today
- Q and A

# Transition to Global Standards



## Motivation for the Transition



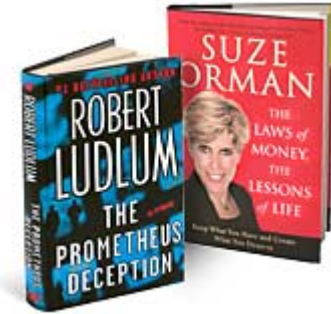
# Motivation for the Transition

- **Retail was once more specialized or compartmentalized**
  - Books were sold in bookstores
  - Greeting cards in card shops
  - Groceries in grocery stores
  - Hardware in hardware stores
  - Soft goods in specialty shops
  - Department stores sold a limited variety of products, but mass merchandisers did not exist

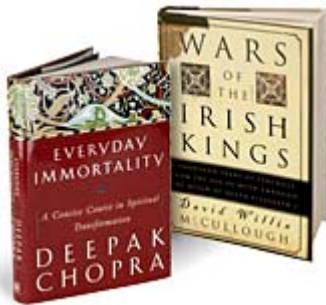
# Motivation for the Transition

- **Today books are sold in a broad array of outlets**
- **Traditional booksellers increasingly sell non-book products**
  - CDs, DVDs
  - Calendars
  - Greeting Cards
  - Gift Items
  - Games
  - Coffee
- **“No industry is an island”**
- **Global standards are a must**

# Transition to Global Standards



## Industry Introduction and Background



# Industry Introduction

- **2006 Another Good Year for Publishing**

- Net Sales for US: \$35.7 Billion
- Up 3% over 2005

*(Source 2007 Book Industry Trends)*

- **Consumer Spending on Books is Up**

- 2006 Total Domestic Consumer Expenditures were \$53.6 Billion
- Up 3.5% over 2005

*(Source 2007 Book Industry Trends)*

# Industry Introduction

- **So Much to Choose From**

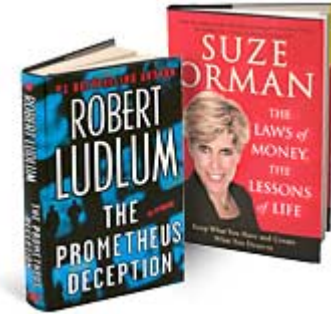
- In 2006 292,000 new titles and editions were produced in the US
- 800 new titles every day!

*(Source: Bowker US Book Production press release June 2007)*

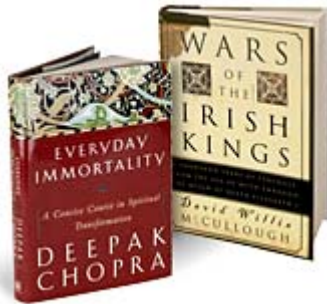
- **A Growing Number of Places to Shop**

- Booksellers
- Mass Merchandisers
- Drug Stores
- Grocery Stores
- Wholesale Clubs

# Transition to Global Standards



## Book Industry Study Group (BISG)



# Book Industry Study Group

- In a recent GS1 US™ conference call focusing on adopting GS1 System compliant standards, representatives of three industries were asked the most important factor in the adoption process
- All three replied:  
“An effective industry organization to organize and coordinate the transition”

# Book Industry Study Group

- **The coordinating agency for the book industry is the Book Industry Study Group**
- **BISG membership includes**
  - Publishers
  - Libraries
  - Booksellers, Retailers
  - Wholesalers, Distributors
  - Printers and Paper Manufacturers
  - Consulting, Service, and Technology Companies
- **BISG has established groups focused on different aspects of the book industry**



# Book Industry Study Group

- **Book Industry Standards And Communications (BISAC)**
  - Standards developing General Committee of BISG
- **In Carrying Out This Work, BISAC:**
  - Has established committees focusing on product identification and marking, metadata, and Electronic Data Interchange (EDI)
  - Has promoted ISBN and its use in the book industry supply chain for over 30 years
  - Partners with other industry organizations
  - Maintains close liaison with GS1 US

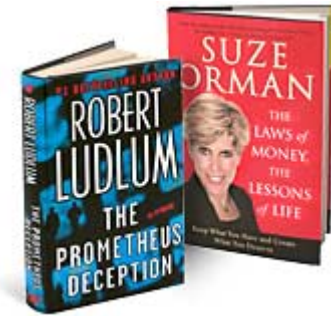
# Book Industry Study Group

- **Distribution Executives Interest Group (DEIG)**
  - Addresses standards for book distribution
    - Carton labeling formats (Shipping and Product)
    - Label certification
    - Serial Shipping Container Code (SSCC) and Advance Ship Notice (ASN)
  - Warehouse operational benchmarking
    - 2nd successful year

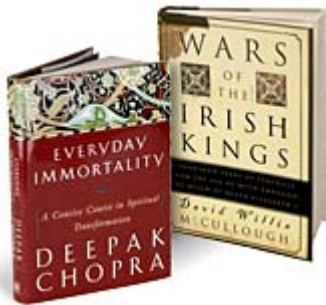
# Book Industry Study Group

- **Manufacturing Executives Interest Group (MEIG)**
  - Addresses standards for communication between publishers and book manufacturers
    - EDI to manufacturers
  - Addresses standards for shipping practices, shipments to publishers and distributors
    - Carton labeling
    - SSCC and ASN

# Transition to Global Standards



## Product Marking



# Books – Product Marking

- **ISBN (Int'l Standard Book Number)**
  - Proposed in the late 1960s
  - First standardized internationally in 1972
  - Across all publishers, no duplication
  - A Check Digit for validity
- **Why an Industry-Specific Number?**
  - There was more specialization in retail in 1970
  - Other identification approaches were not suitable

# Books – Product Marking

- **ISBN (1970s)**
  - Ten characters
  - Modulus 11 Check Digit, alpha-numeric
  - Variable length Publisher segment
  - Provided for over 550,000 English-language publishers
- **U.P.C. (1970s)**
  - Twelve digits, all numeric
  - Modulus 10 Check Digit
  - Fixed manufacturer segment
  - Provided for 100,000 US and Canadian manufacturers

# Books – Product Marking

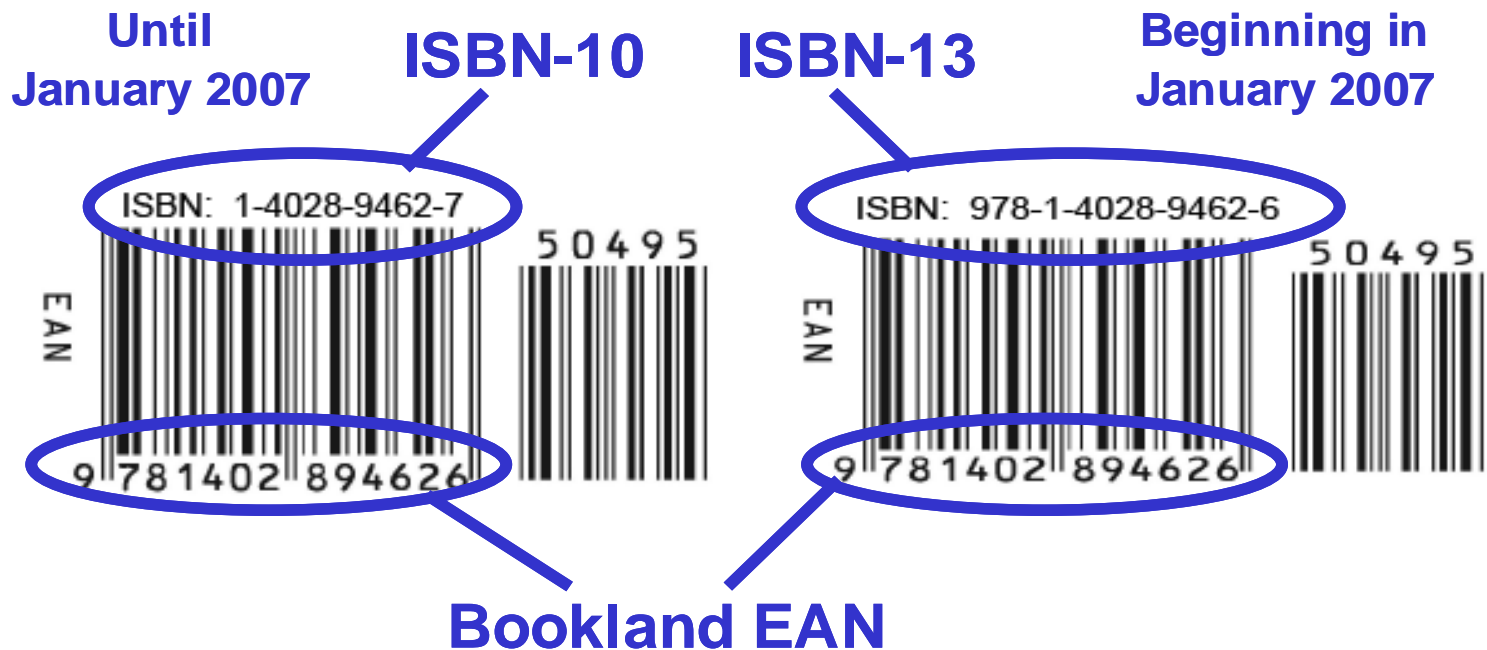
- **In the 1970s, the book industry attempted to mark books with machine readable ISBN**
  - OCR-A was chosen
  - It was not sufficiently reliable in bookstores
  - Elsewhere, retailers either did not adopt it or did not continue with it

# Books – Product Marking

- **In the 1980s, the book industry adopted the Bookland EAN and bar coding**
  - The fictitious country of “Bookland” was introduced, with a country prefix of ‘978’
  - Using the Bookland prefix, the 10-digit ISBN was encoded as a full 13-digit EAN in a bar code called the Bookland EAN
  - Booksellers used an algorithm to retrieve the 10-digit ISBN from the Bookland EAN
  - The full 13-digit GTIN-13 / EAN was not used as the identifier

# Books – Product Marking

- In January 2007, the ISBN was redefined from a 10-digit to a 13-digit identifier
- The identifier encoded in the bar code was already an ISBN-13 / GTIN-13

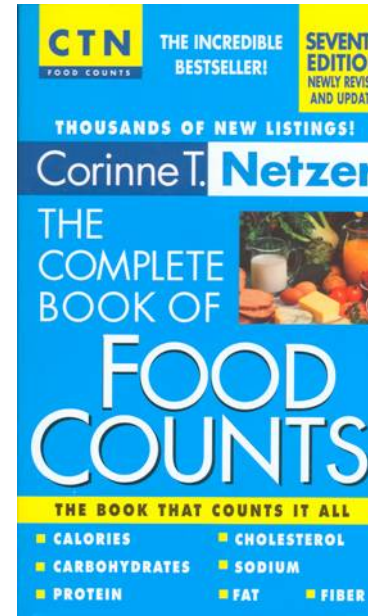
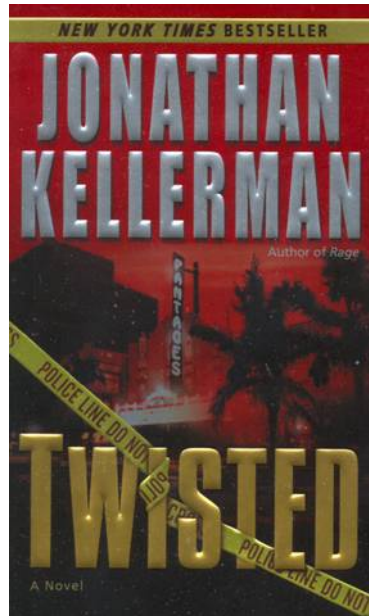


# Books – Product Marking

- **Only one bar code on a book**
  - Some books sold by traditional booksellers and by general retailers have displayed two bar codes on the back cover
  - Bookland EAN and UPC-12
  - Two bar codes and two identifiers for the same product are inefficient and costly
- **With 2005 Sunrise and the redefined ISBN (a GTIN-13 / EAN-13), it is no longer necessary to display two bar codes**

# Books – Product Marking

- **Price Point U.P.C. to GTIN-13 / EAN**
  - The Tale of Two Titles



# Books – Product Marking

The identifier on these books today...

The same identifier  
050694007991 for both titles.



# Books – Product Marking

## What the future holds...

Unique title specific information is embedded in the bar code.

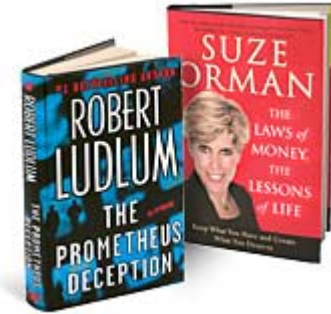


# Books – Product Marking

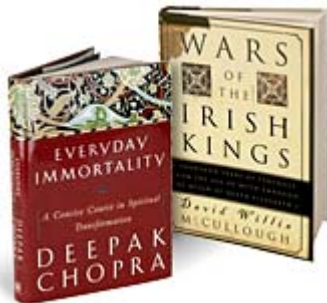
**Together, these developments lead to:**

- **A Single Identifier for Books**
  - All books will be identified by a single GTIN-13 / EAN
  - The bar code is an EAN
  - The ISBN / GTIN-13 / EAN is the identifier throughout the full supply chain
- **... And Only One Bar Code on a Book**
  - Two bar codes (U.P.C. & EAN) are inefficient, and no longer necessary for item-specific identification

# Transition to Global Standards



## Supply Chain



# Books – Supply Chain

- **For EDI**
  - Initially used proprietary magnetic tape formats
  - Adopted ASC X12
  - PO, POA, Invoice, Product Data, and ASN
- **Carton Shipping Label**
  - Originally free form
  - DEIG recommended label is built on GS1 format
  - Serial Shipping Container Code (License Plate Number)
  - Location Designation is Global Location Number (GLN) compatible
- **Carton Product Label**
  - Includes a GTIN-14

# Books – Supply Chain

- **Original Electronic Communication**
  - Developing formats for electronic communication was the origin of BISAC
  - 80 character fixed format records
  - Purchase Order, POA, and Invoice formats
  - Communication primarily via magnetic tape
- **Moved to EDI in early 1990s**
  - Magnetic tape was increasingly seen as expensive and cumbersome
  - Adopted ASC X12
  - Cooperatively configured maps for PO, POA, Invoice, Product Data, and ASN

# Books – Supply Chain

## DEIG Shipping Label (no product information)

<b>Zone A</b> Ship From	<b>Zone B</b> Ship To
<b>Zone C</b> Carrier bar Code	<b>Zone D</b> Carrier
<b>Zone E</b> Receiver/Customer Segment	<b>Zone F</b> Shipper/Supplier Segment
<b>Zone G</b> Final Destination Code	<b>Zone H</b> Mark For text
<b>Zone I</b> SSCC Bar Code (Serial Shipping Container Code)	

GS1 Template

FROM: XYZ PUBLISHING 1234 MAIN STREET PUBVILLE, NJ 07774	TO: BARNES & NOBLE DISTRIBUTION 1 BARNES & NOBLE WAY, STE. A MONROE, NJ 08831
PO # (400) 123456789 	
Destination SAN (410) 079999 800146 4 	
SSCC (00) 0 0614141 000000235 1 	

GLN

SSCC


Typical Implementation

# Books – Supply Chain

- **Destination SAN – Transition to GLN**
  - Book Industry Standard Address Number (SAN)  
800 146 4
  - By agreement between GS1 US and US ISBN Agency,  
SAN in GLN format  
079999 800 146 4
- **Serial Shipping Container Code**
  - GS1 prefix / Serial Reference  
0 0614141 000000235 1
  - ISBN prefix  
0 9781234 000000235 0

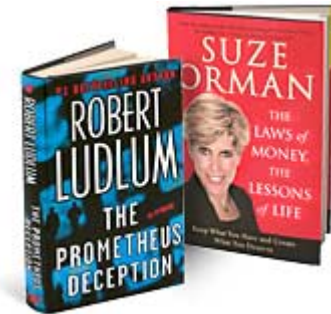
# Books – Supply Chain

## DEIG Product Label (no shipping information)

<b>TITLE: LATEST BESTSELLING TITLE, THE</b> <b>AUTHOR: WRITER, GREAT</b> <b>ON SALE: 11/11/2003</b> <b>PUBLISHER: HAPPY PUBLISHER</b> <b>PRINTED IN USA</b>	
<b>PPON: 123456</b>  (251) 123456	<b>PRINTING #: 11-03</b>  (10) 11-03
<b>CTN QTY: 24</b>  (30) 24	<b>CTN WGT: 10.0 lbs.</b>  (3401) 000100
<b>ISBN-13: 978-1-234-56789-7</b>  (01) 19781234567894	<b>COVER PRICE: \$50.00 USD</b>  (9012Q) 5000USD

GTIN-14: 19781234567894

# Transition to Global Standards



## Metadata



# Books – Metadata

- **Global Considerations**

- ISBN is already global – in over 160 countries
- ISBN-13 is automatically a member of the Global Trade Item Number<sup>®</sup> (GTIN<sup>®</sup>) family
- The path is established for participation in the Global Data Synchronization Network<sup>®</sup> (GDSN<sup>®</sup>) and other global supply chain activities

# Books – Metadata

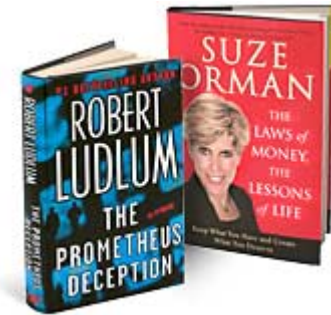
- **ONIX**

- International standard for describing and communicating product information in Extensible Markup Language (XML)
- Used by all the largest US publishers, retailers and wholesalers
- BISG maintains ONIX standard in US
- Version 3.0 (Fall 2007) will encompass digital publications for the first time
- BISG's Metadata Best Practices support ONIX
- Certification program (Fall 2007)

# Books – Metadata / GDSN

- **The industry-specific standard for book product data (ONIX) will remain in place and be enhanced**
  - Traditional booksellers need the comprehensive data points ONIX provides
  - The level of detail is overkill for general retail
- **BISG is exploring participation in GDSN**
  - Potentially bridging existing book industry data points into the attributes of GDSN Data Pools
  - Ensuring that content integrity of book data is preserved while meeting the needs of general retailing

# Transition to Global Standards



**Where We Are Today  
... and What It Means**



# Where We Are Today

- **Disappearance of “Traditional” Lines**
  - “Big Box” stores are offering a wide variety of products outside traditional lines
  - “Little Box” stores are offering a wide variety of products outside traditional lines
  - Many General Retailers sell books
- **Costs of doing business are rising**
  - Retail price increases are unpopular with consumers
  - Efficiency in every step of the supply chain is critical
- **Global standards are imperative**
  - Good communication of information
  - Printed information always in the same location on products and cartons

# Where We Are Today

- **In General Retailing**

- 2005 Sunrise Initiative
- GTIN-13 / EAN and UPC-12 are the standard identifiers for the US and Canada

- **In the Book Industry**

- ISBN has expanded to a 13-digit identifier
- ISBN-13 is a GTIN-13 / EAN
- The industry has adopted GS1 System standards for the information sharing and the supply chain

# Where We Are Today

- **What All This Means for General Retail**
  - The identifier bar coded on the book is the identifier used to order, sell, and reorder it
  - All bar coding is item specific, unique to the book
  - No dual bar coded books
  - No overstickering of Bookland EAN with U.P.C.
  - Book publishers and distributors will be able to participate in GDSN

# Where We Are Today

**In Other Words:**

**Books can be handled in the same manner as any other product in the General Retail supply chain**

**IF**

# Where We Are Today

**Books can be handled in the same manner as any other product**

- **IF the General Retailer is  
2005 Sunrise Compliant**
- **IF the General Retailer's Buyers Know:**
  - That their company is 2005 Sunrise compliant
  - What 2005 Sunrise compliant means
  - That U.P.C. is not a generic term for “bar code”

# Transition to Global Standards

**Thanks!**

**Questions?  
Comments?**

# Transition to Global Standards

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