



INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE No. 100: AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT ADVISORY GROUP ON STRATEGY

Overview of E-Publishing and E-Books and their Requirements for International Standardization

Yushi KOMACHI
Panasonic Communications

2003-11-05

1. E-Book Market in Japan

1.1 Major topics

1. "Electronic Book" (SONY), 1990
2. "Digital Book" (NEC), 1993
3. E-book Shop: "Papyless", 1995
4. E-book Consortium, 1998-2000
5. PDA and "eBook Reader", 2000
6. E-book Shop: "Pubri", 2000
7. E-Book Equipment, 2003

1.2 Market size

(by "E-book Business Report", 2003)

(1) Market of E-Books: Electronic Books*

*: Electronic book data distributed by a network, excluding
— electronic dictionaries,
— electronic maps,
— academic electronic journals and
— texts for e-learning.

- 2002: Yen 1,000,000,000
- 2005: Yen 18,000,000,000 (estimated)

(2) Market of Electronic Dictionaries

- 1997: Yen 11,000,000,000
- 2000: Yen 39,000,000,000
- 2003: Yen 44,000,000,000 (estimated)

(3) Contents of E-Books

1. Novel
2. Computer/Technical
3. Cartoon
4. Science fiction
5. Business
6. Photo album
7. Essay
8. News

(4) Readers of E-Books

- Men/Women = 4/1
- (Regarding Mobile phone books: Men/Women = 2/3)

(5) E-Book distribution sites

E-Book distribution sites site	number of titles	market share (%)	number of new titles /month
Papyless	11,300	29	400-500
Space Town Books	5,500	14	200-300
Pubri	4,600	12	200-300
PDABOOK.JP	4,000	10	200
Rakuten Download	3,747	10	200
10DaysBook	3,500	9	200
Bitway-books	2,500	6	150
Web no Shosai	2,100	5	120
M-stage book	1,700	4	70
Sum total	39,000*	99	--

*: including duplication

Download from the E-Book distribution sites	
site	number of downloads /month
Papyless	32,000
10DaysBook	20,000
Space Town Books	15,000
Rakuten Download	15,000

(6) File Formats of E-Books

File Formats of E-Books			
File format	Reader software	Equipment	Support feasibility for

			DRM (Digital Rights Management)
Plain text	-	PC, PDA	
PDF	Adobe Reader	PC	*
Adobe eBook	Adobe Reader	PC	***
dotbook	T-Time	PC, PDA	**
XMDF	bunko viewer	PC, PDA, Mobile Phone, etc.	**
ebi.j bookreader	ebi.j bookreader	PC	***
DigiBook	kraemon	PC	***
Expanded Book	Expanded Book	PC	*
bj2	Book Jacket2	PC	*
Kacis Book	Kacis reader	PC	**

From the readers' point of view, an appropriate standard for file format of E-Books, particularly E-Books on cartoon, are requested. Today available E-Books on cartoon employ a compressed bitmap image scanned on rendered images. They could be described more sophisticatedly with a vector graphic technology.

2. E-Book Equipment

σ Book

will be put on the market in Fall'03, by Panasonic.

- No power switch, using extremely low power LCD
- Resolution: 180 dpi
- 154.5mm(W), 205mm(H), 25.4mm(D), 520g

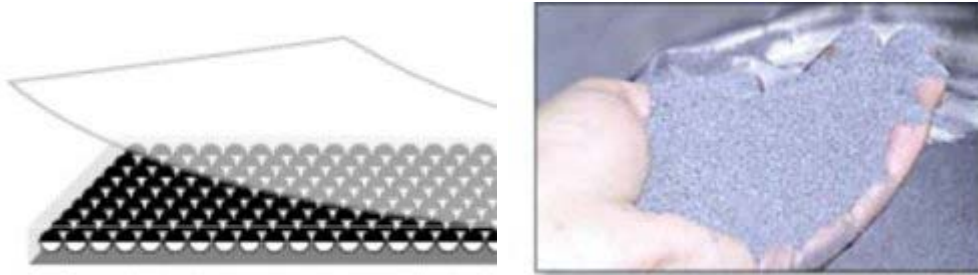


3. E-Paper

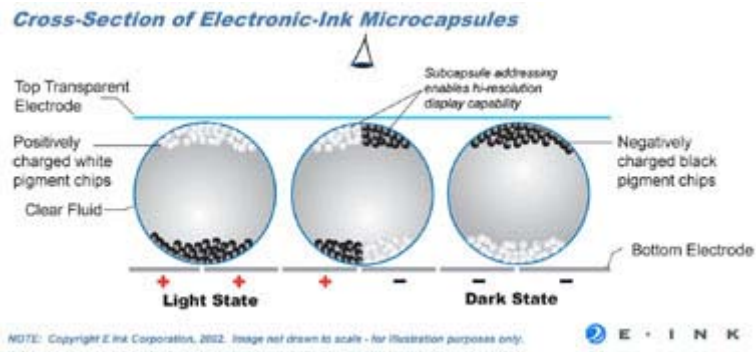
3.1 Several Types of E-Papers

Several types of E-Papers have been developed and announced.

(1) Gyricon Media



(2) E Ink, Toppan/Philips



(3) Xerox



3.2 E-Paper Consortium

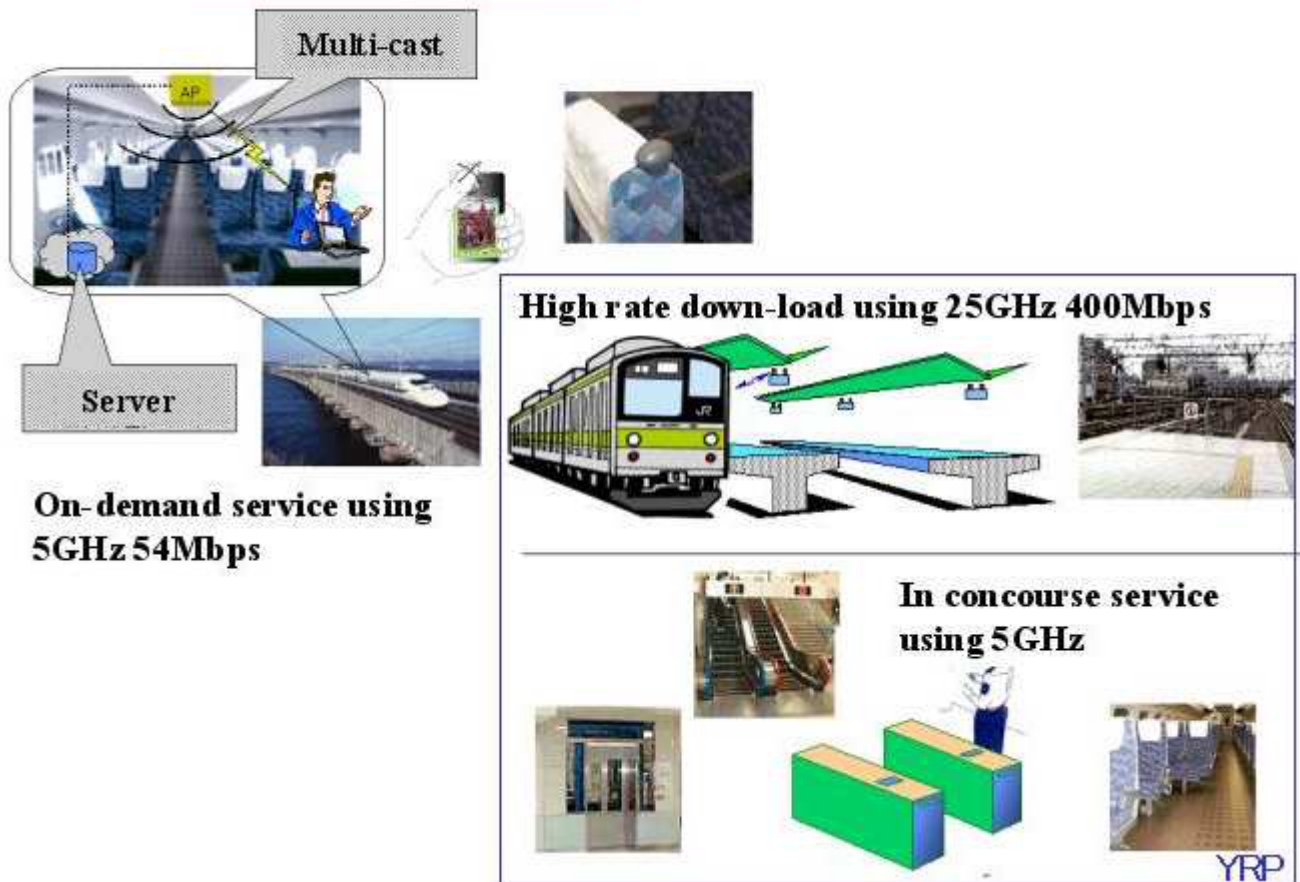
JBMIA (Japan Business Machine and Information System Industries Association) established E-Paper Consortium in 2003. Its major activities are

- to clarify user requirements and functional requirements for E-Paper,
- to develop applications of E-Paper and their business models.

Twenty-one companies, e.g., Toshiba, SONY, Toppan/E-Ink, Panasonic, etc., join the E-Paper Consortium.

4. Electronic Newspaper

MMAC Wireless Newspapers will be read in trains



References

- [1] Y. Uemura, E-Book market and E-paper, EP/WG2 report, INSTAC/JSA, 2003-07
- [2] Web on σ Book, <http://matsushita.co.jp/corp/news/official.data/data.dir/jn030422-5/jn030422-5.html>
- [3] Web on Gemstar, <http://www.gemstar-ebook.com/ebcontent/devices/default.asp>
- [4] Web on Gyricon Media, SmartPaper, <http://www.gyriconmedia.com/smartpaper/index.asp>
- [5] Web on E Ink, <http://www.eink.com/technology/>

- [6] Xerox E-Paper, <http://www.bis.uni-oldenburg.de/abt1/waetjen/reutlingen/sld018.htm>
- [7] Web on E-Paper Consortium, <http://www.jbmia.or.jp/epc/>
- [8] G. Ohta, A prototype of Electronic Newspaper distribution by broadband nomadic wireless MMAC/HiSAWNa/b, MMAC HSWA Committee, 2001-12

5. Standardization Items

(1) Multimedia electronic book systems - Conceptual model for standardization of multimedia electronic book systems

The model should include all the systems for electronic publishing, including multimedia book creating, distributing and browsing systems. The model can clarify standardization issues on multimedia electronic book systems.

(2) Multimedia electronic book systems - Data formats of multimedia electronic books

- Non-structured raster graphic book data (still and moving)
- Structure multimedia data
- Interactive data

(3) Multimedia electronic book systems - Minimum requirements for multimedia electronic book viewers

Requirements on, e.g., interface, image area, page concept, etc.