Infotrends Digital Imaging ’05
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Optical Storage Symposium

Joint Session
September 28, 2005
Hyatt Regency, Burlingame

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I3A Board of Directors

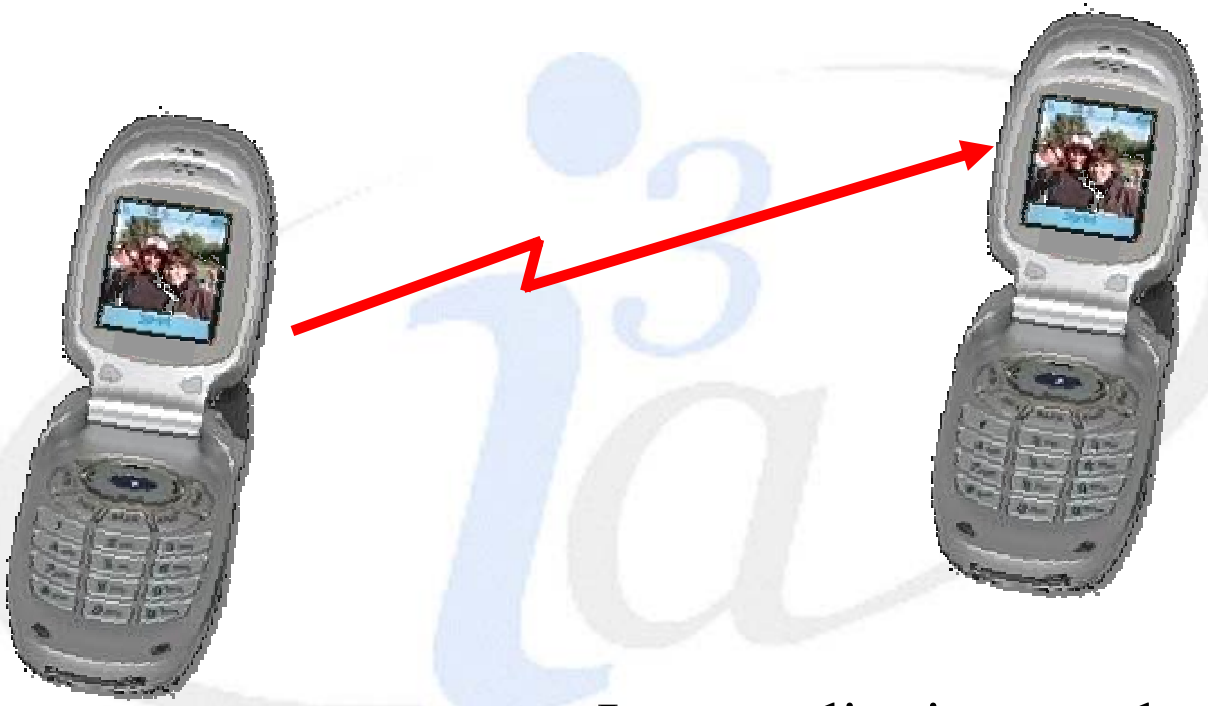
Hewlett-Packard

Focus for the Session:

- Do consumers care or need better interoperability?
- How will interoperability affect consumers' behavior while using digital images?
- Will cell phone imaging drive the need for easier and better exchange of images?
- When will camera phones carry metadata?

Some facts, some opinion; it started with the cellphone-camera:

Started with Low Resolution Capture to Low Resolution Display?

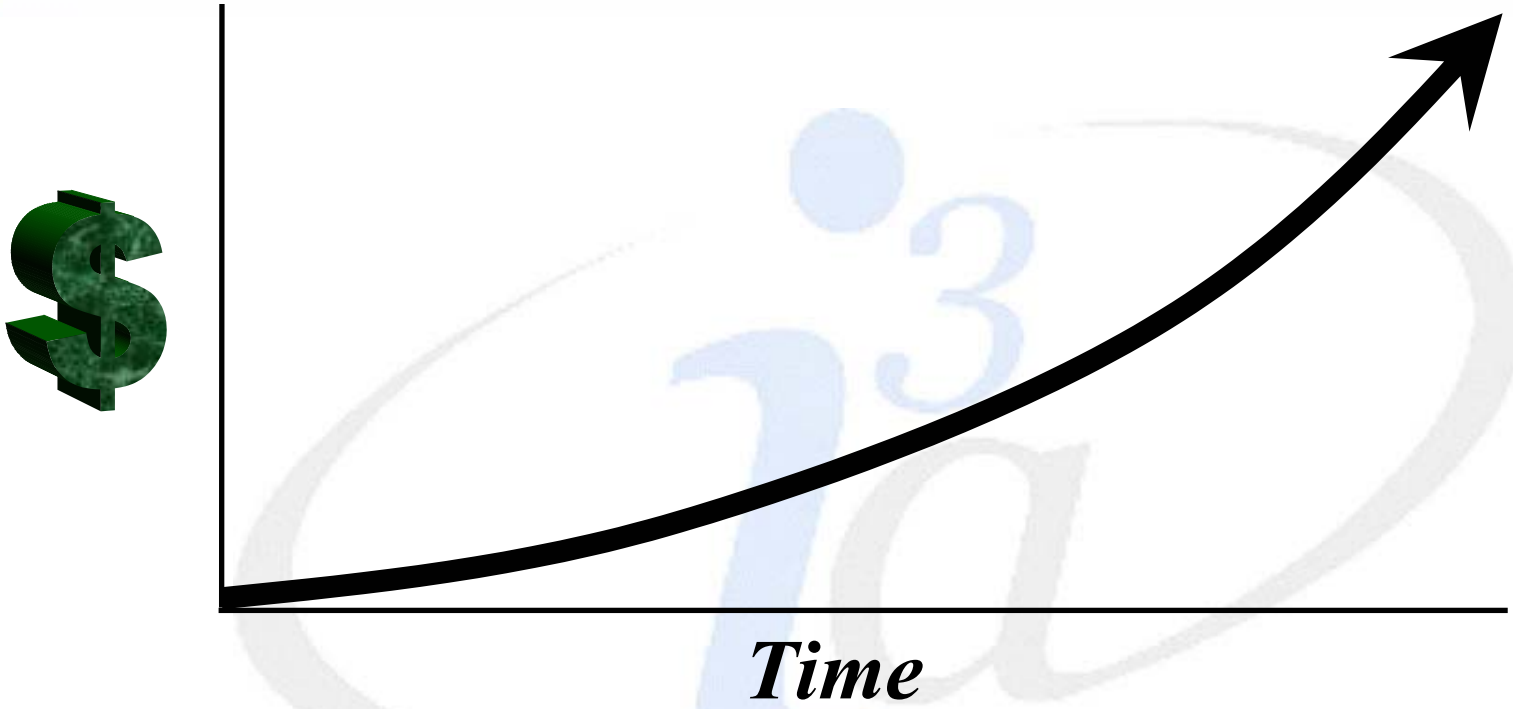


Low quality images, low usage!
Quality is the determinant

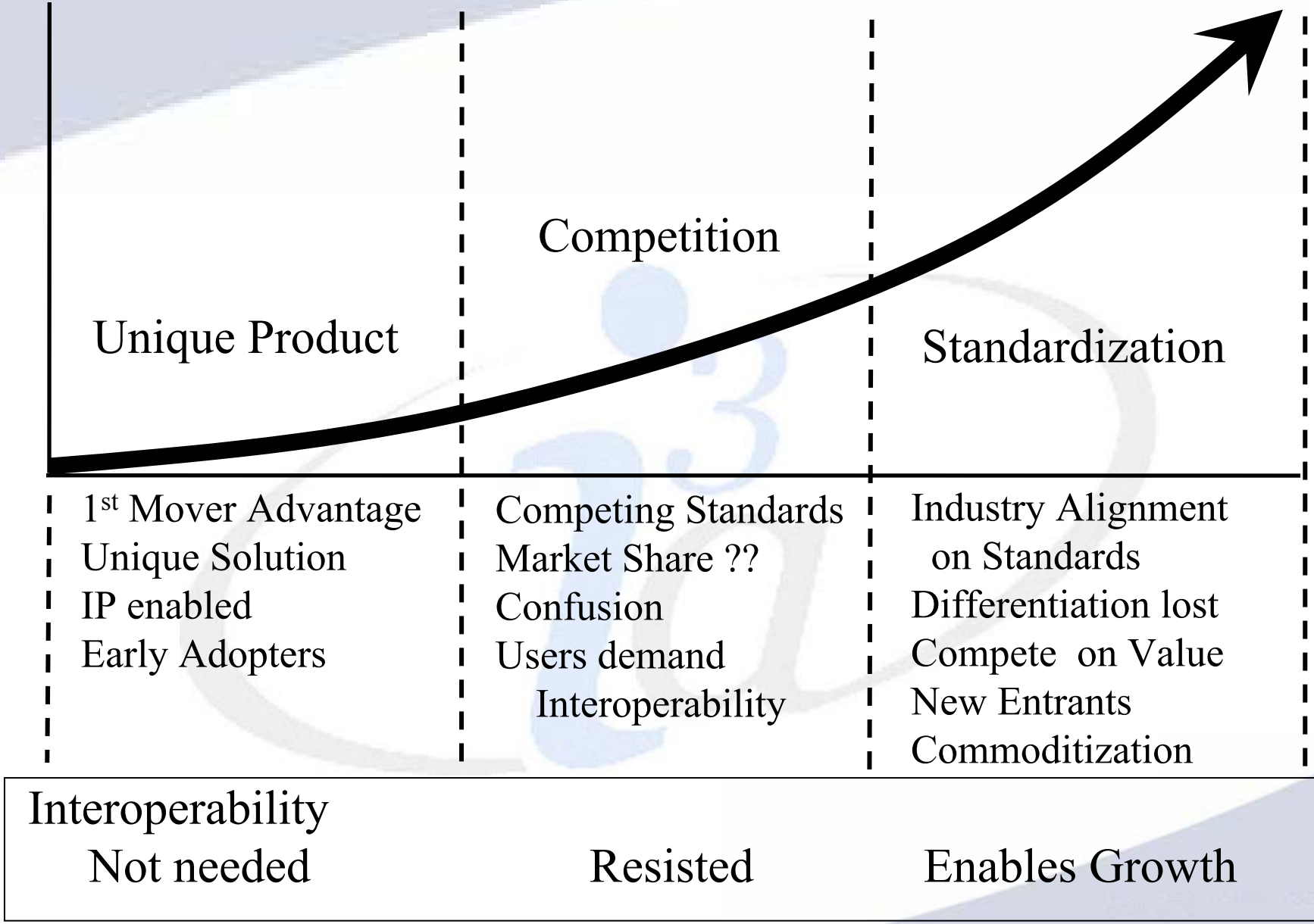
Consumer Needs for "Keeper" Images

This will be big.

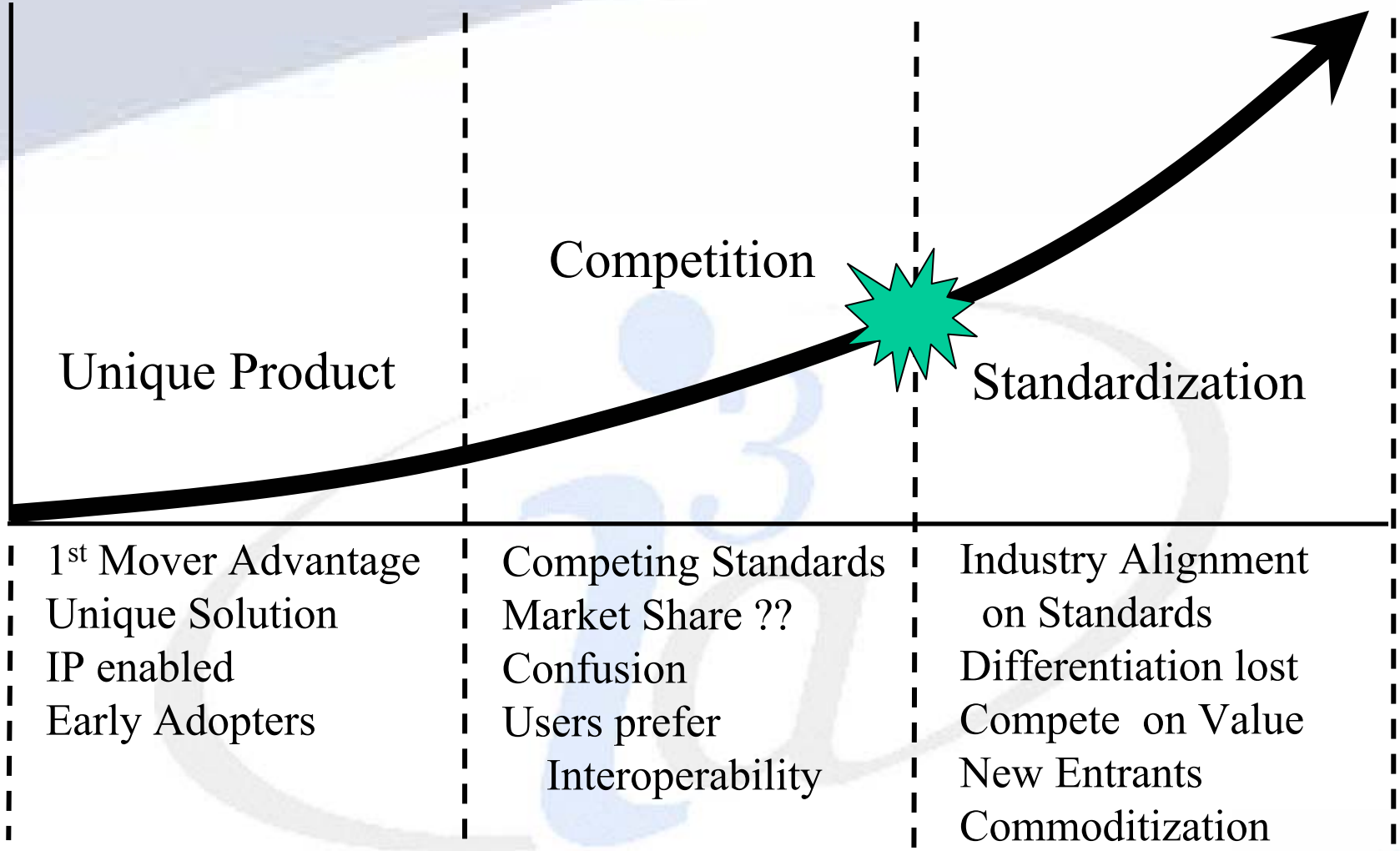
Successful Businesses **Grew** to Get Big



Phases of Standardization



Business Models Are Impacted



Interoperability		
Not needed	Resisted	Enables Growth

What is I3A?

International Imaging Industry Association

- Forum founded in 1946 as NAPM, then PIMA in '97
- I3A formed in 2001 via merger of PIMA and DIG
- ANSI and ISO accredited SDO
- Current BOD: AGFA, Digimarc, Kodak, Fuji, HP, Konica-Minolta, Schoeller Paper, Sprint
- 12 Committees on Tech (7), Marketing, Trade, EHS, …
- Annual Leadership Conference in San Diego, November 2-4

www.i3a.org

I3A Deliverables

What	How	Examples
ISO Standards I3A Standards (ANSI)	Open IT Committees 1 vote per nation 6 months-5 years IT Committee Approval	ISO 12231 -terminology ISO 12232 – ISO speed ISO 20462 – Psychophysical Image Quality assessment sRGB, e-sRGB, PTP, RIMM-RGB, ROMM-RGB
Initiative Groups Research	3-N companies agree to work together. Open to all I3A members. Sponsoring Companies	DIG 35, DIG 2000 CPXe I, II Consumer Archiving Film Import/Export
Events for Awareness and Networking	Marketing Committee	PMA I3A Reception Mobile Imaging Summits Leadership Conference Tech Forum's at PMA et al

What color is a number?

- Digital files contain numbers
- What color is the triplet {170, 200, 230}?
- It depends on the color encoding

{170, 200, 300}
sRGB

{170, 200, 300}
ProPhoto RGB

{170, 200, 300}
CIELAB

sRGB for Color interoperability

- Standard: I3A IT-10.7667-2004
- Targets Consumer Applications
- sRGB is the most widely used and supported color encoding for Digital cameras, computers, displays, web, printers, etc.

Picture Transfer Protocol

- ANSI/PIMA IT10 15740-2000
- Said to be used in 98% of digital camera-PC image transfers over USB

DIG35 – Image Metadata (2001)

see www.i3a.org

- XML based
- Collaboration with JPEG2000 and MPEG7
- Extensive vocabulary
  - Image content
  - Copyright
  - Embedded or linked

Photographer: Kats Ishi
Date: 1999-12-09
Location: Maui, Hawaii
Title: Memorable Conference
Event: DIG35 Meeting
Keywords: ocean, palms, pool, bikini, sky, Hawaii, beach
People: Bob, Mary, Ted

I3A Common Picture Exchange Environment (CPXe)

- Specifications for API's for Imaging Services
  Using existing standards:
  (XML, SOAP, UDDI, WSDL, MPV, HTTP)

- API's for print fulfillment, image storage, upload and download, revenue sharing.

- Web Browser Interface Spec (WBIS) includes MPV manifest upload as key enabler

- More info available at the I3A Table or **www.i3a.org**

Consumer Image Archiving

Stable for generations?
Readable 100 years from now?
Periodic, redundant, offsite?
Looming Disaster?

prints

I3A WG-5/IT-9 Permanence of Imaging Materials

- **DIS 18935 Water Fastness of Color Images**
- **WD 18936 Thermal Stability of Consumer Photographs**
- **WD 18937 Light Stability Test Methods for Color Reflection Prints and on-going work with H. Wilhelm on ink jet print life**
- **WD 18938 Care and Handling of Optical Discs, Dr. Engeldrum new proposal for testing storage life of CD/DVD's**

Recently Approved Initiative Group

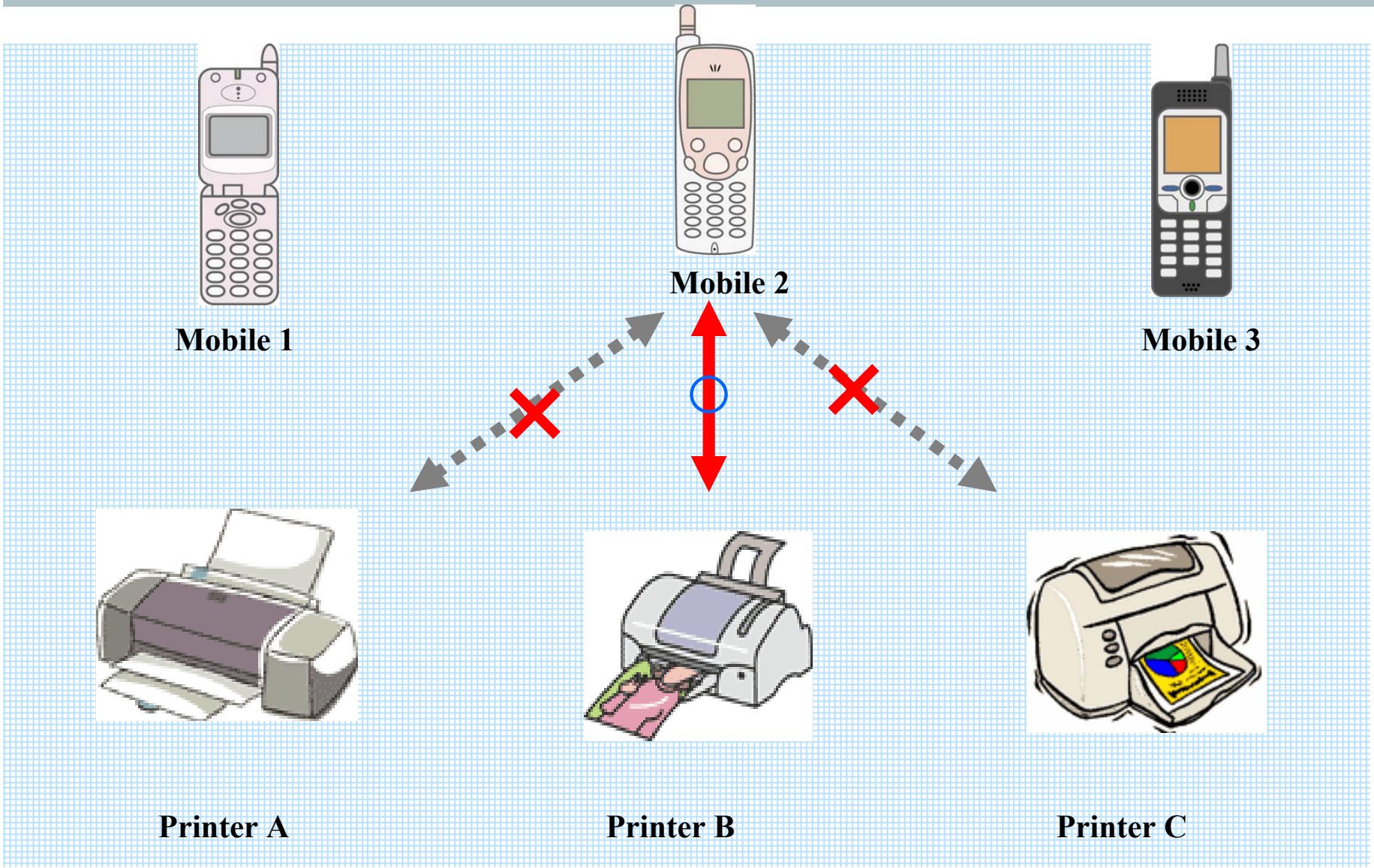
- **Raise Industry and Consumer Awareness of the need to Archive**
- **Consumer facing website**
- **Initiated by Fuji, HP, Kodak**
- **Open enrollment to everyone shortly**

Mobile Imaging and Printing Consortium

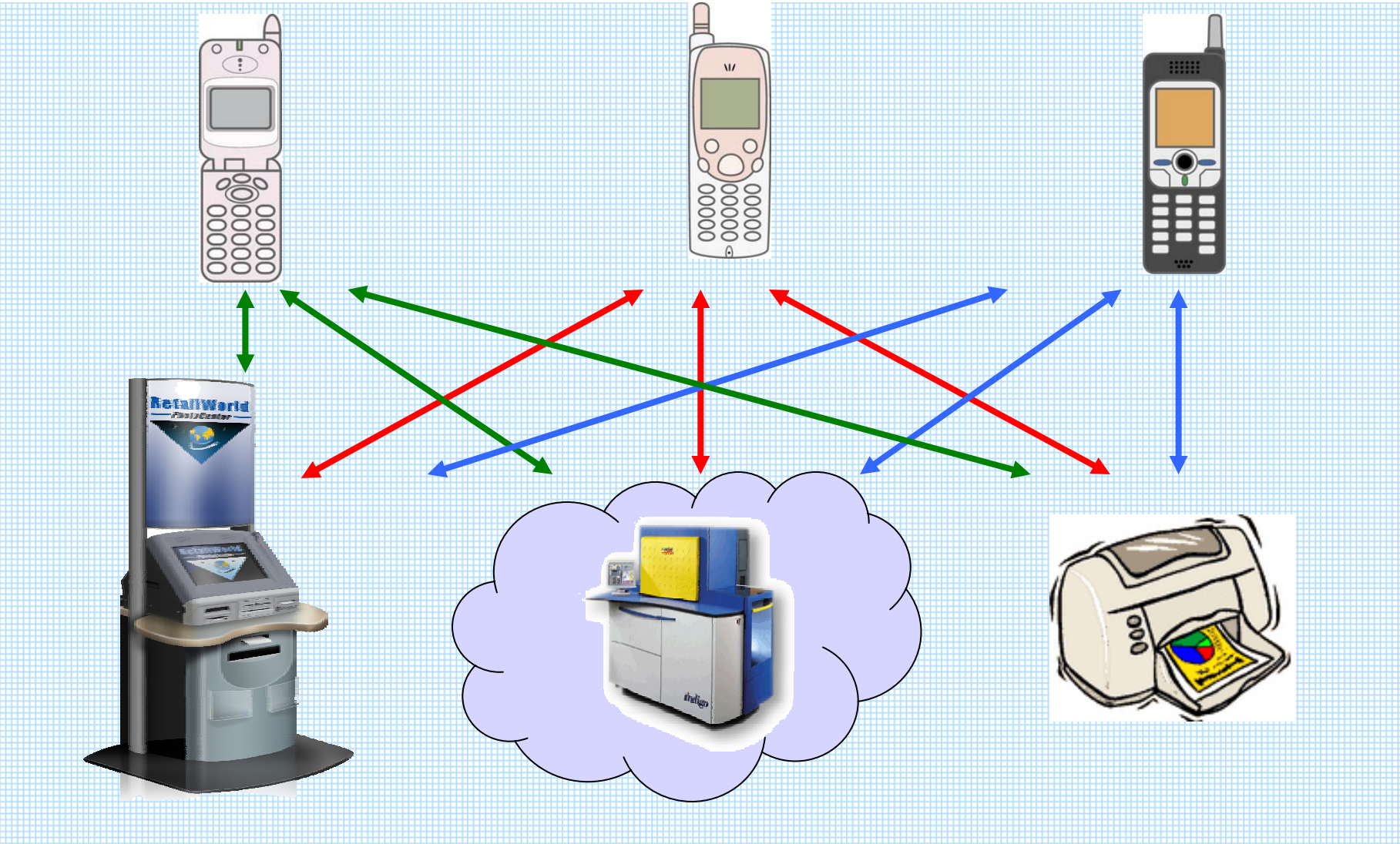
MIPC

Founded in 2004 by Canon, Epson, HP; now includes most major players in printing and handsets. Open membership.

Current Status: Not guarantee interoperability



The Ultimate Goal (End User's perspective)



MIPC opportunity is to:

- Address the mobile device imaging and printing in the home and Kiosk. Remote printing a future concern.
- Driving PictBridge as wired solution; Bluetooth for wireless; and printing directly from Memory Cards
- Develop, deliver, and promote implementation guidelines
- For handheld mobile devices having imaging capability and long distance wireless connectivity
- Reasonable And Non-Discriminatory (RAND) or less restrictive IP policy (example: Royalty Free, Open Source).

For more info, go to mobileprinting.org

Consumer Needs for "Keeper" Images

Thank you.

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