Corruption & Distortion:

The Dark Side of Digitization

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The Idea

How we read directly affects our worldview (Darnton, 2009)…
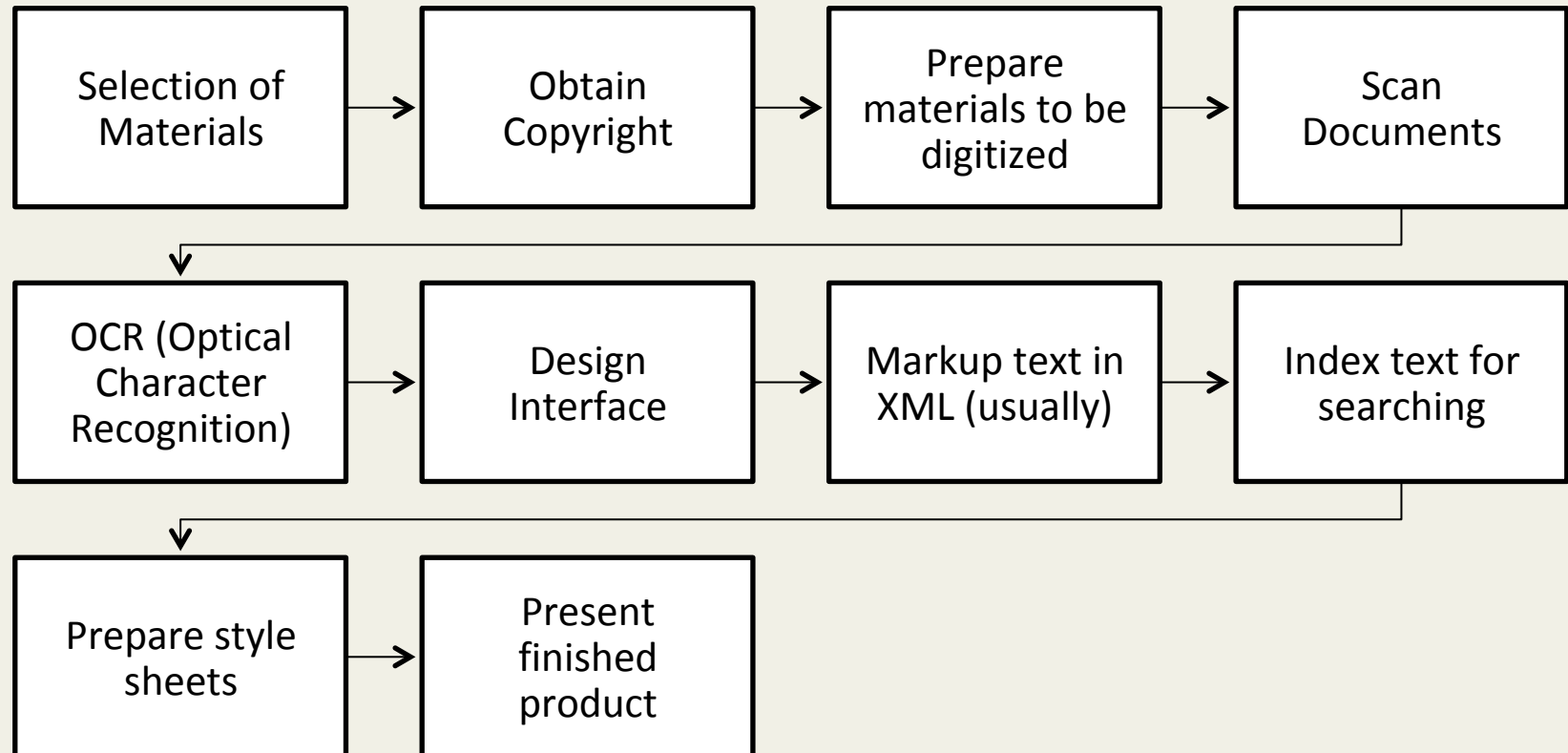

Image Courtesy of theportuguesewaterblog.blogspot.com

VS.

Image Courtesy of Rekinde.com

…So how does the digitization of library and archival materials affect a user's interaction with the information contained within?

The "Typical" Digitization Process

Selection of Materials	→	Obtain Copyright	→	Prepare materials to be digitized	→	Scan Documents

OCR (Optical Character Recognition)	→	Design Interface	→	Markup text in XML (usually)	→	Index text for searching

Prepare style sheets	→	Present finished product

Distortion of Source Material

- Many institutions sacrifice color quality and resolution for file size.
  - Smaller bit-depth = Smaller file = Greater color distortion
- Even after the scanning, or photographing, process, libraries cannot guarantee optimal viewing conditions of the documents.
  - Monitor Size and Calibration to name but a few
- Finally, the technology itself can cause corruption of the data, as the former becomes out of date.
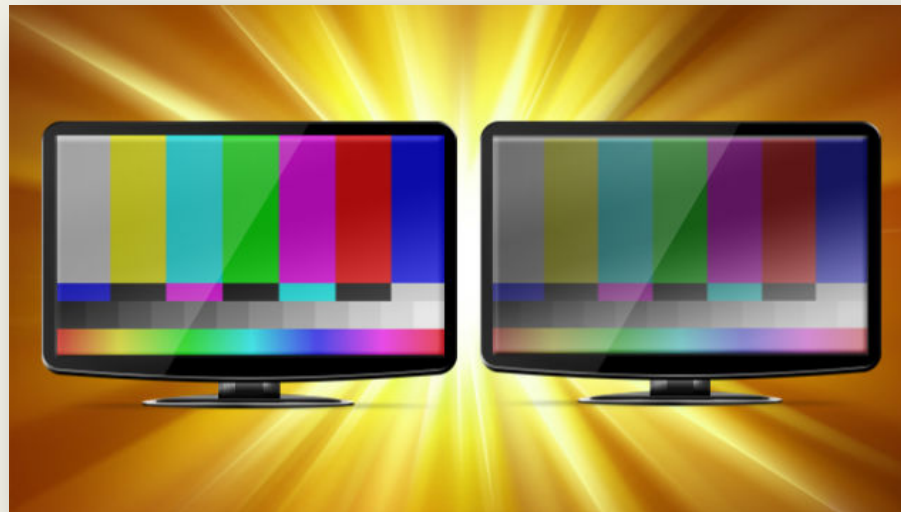
Image courtesy of LifeHacker.com

Corruption of User Experience

- Fair to assume that most digitized material is viewed remotely, as such the user's experience becomes mediated by the screen.

- Size distortion is yet another variable that is often overlooked.

- Proper monitor calibration is not often communicated to the user.

- Loss of context for user.

Possible Solutions

- Video tutorials for users to deal with color distortion.

- Disclaimers for users to make them aware of the alteration in their experience.

- Budgeting for the future migration and update of data.

  - The possibility of investing in emulators.

- More research to better identify the effect of digitization on users.

References

Arthur. K., & Association of Research Libraries. (2004). *Recognizing digitization as a preservation reformatting method*. Washington, DC: ARL.

Association of Research Libraries (2004). *ARL endorses digitization as an acceptable preservation reformatting method* [press release]. Retrieved from http://www.arl.org/news/pr/digitization.shtml.

Bülow, A., Ahmon, J., Spencer, R., & National Archives (Great Britain). (2011). *Preparing collections for digitization*. London: Facet Publishing, in association with the National Archives.

Byrd S. (2012) Richmond Architectural Surveys: Choice in Digitization. *Virginia Libraries*, 58(1), 23-25.

Cohen, A. (2012, October 19*) Digitizing the Library: Authenticity vs. access* [power point slides].

Darnton, R. (2009). *The case for books: Past, present, and future*. New York, NY: PublicAffairs.

Gemmill, L. (2012) Sixteen Million Pages and Counting: Laurie Gemmill on the LYRASIS Mass Digitization Collaborative. *Virginia Libraries*, 58(1), 31-33.

References

Hazen, D. C., Horrell, J. L., Merrill-Oldham, J., & Council on Library and Information   Resources. (1998). *Selecting research collections for digitization*. Washington, D.C: Council on Library and Information Resources.

Hughes, L. M. (2004). *Digitizing collections: Strategic issues for the information manager*. London: Facet.

Kenney, A. R., Rieger, O. Y., & Research Libraries Group. (2000). *Moving theory into   practice: Digital imaging for libraries and archives*. Mountain View, CA: Research Libraries Group.

Maurya, R. (2011). Digital Library and Digitization. *International Journal of Information Dissemination & Technology,* 1(4), 228-231.

Mugridge, R., & Association of Research Libraries. (2006). *Managing digitization activities*. Washington, D.C.: Association of Research Libraries.

Note, M. (2011). *Managing image collections: A practical guide*. Oxford, UK: Chandos Pub.