Advanced Collaborative Annotation Management for Adobe Acrobat

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Related Literature Review

► Effects of annotations on student readers and writers (Joanna Wolfe)
  - Allow readers to retrieve annotations based on the text in the primary document
  - Provide capabilities to categorize annotations by positive or negative content
  - Provide information about annotators including their general position about a particular topic or texts.

► Pedagogical Uses of Annotations and Annotation Technologies, (Joanna Wolfe - PhD dissertation)
  - Two main alternatives for displaying collaborative annotations on documents:
    - Layered layout of notes with transparencies
    - Discussion thread like

► Xlibris: The Reading Appliance Revolution. Bill N. Schilit et al
Arguing across the margins: How text layout affects reading-to-write strategies, Joanna Wolfe

- Classifies annotations as questions/notes/explanations/replies etc
- Uses discussion thread-like approach for laying out annotations
- Limited to web-pages with no other annotation support other than text

Computer Support for Distributed Collaborative Writing: A Coordination Science Perspective, Christine Neuwirth et al, CMU
- Identifies different tasks in the collaborative writing process: planning, drafting, reviewing
- Tests a design prototype – PREP editor, that supports these tasks
- Conducts a study of text v/s voice annotations and concludes that voice annotations are superior in terms of supporting collaborative discussion
Project and Goals

- Problem
  - Collaborative annotations of PDF documents.

- Goals
  - Allow multiple users to review and discuss each other’s annotations.

- Project
  - A plugin for Adobe Acrobat reader
  - A study to compare two different layouts for displaying collaborative annotations.
Current solutions

► Two possible solutions for annotations layout.
  ▪ Layered display of annotations using transparency
    ► e.g. Adobe Acrobat
  ▪ Discussion threads interface
Adding Comments

The Acrobat comment tools provide a variety of methods for marking up text and attaching notes and commentaries to PDF documents. These annotations can be in text, graphic, or audio format, and you can even attach external files if you like. Comments and markups can be imported and exported from a PDF document.

About comments

There are three types of comments:

1. Notes: A note is an annotation that is added to a document. Notes can be text, audio, or video.
2. Markup: Markup is a change made to a document, such as highlighting or underlining text.
3. Stamp: A stamp is a pre-defined annotation that is added to a document, such as a signature or a date stamp.

Using the Comments palette

The Comments palette lists the comments in a document and sorts them by type, author, page number, or creation date. The comment list initially groups comments by page number.

You can also change properties of the current comment with the comment properties in the Preferences dialog box.

For more information on how to use these tools, see "Using the comment tools" on page 133.

See "Marking up documents" on page 135.
What’s wrong?

► Reviewing annotations on a PDF document.
  ▪ Single level of independent annotations.
  ▪ No classifications of annotations
  ▪ No compilations of annotations to achieve overview
Our project

Implementing the discussion thread layout for adding and reviewing annotations in Adobe Acrobat.

- Annotations migrate with the document.
- Annotations are classified into different types (comments, questions, negative, positive,...)
- Color coding positive and negative comments to generate a compilation for the whole document
Validation

► A usability study to compare the two layouts
  ▪ Or relying on the results of an existing study if it exists (in progress contact with researchers)
Discussion