Video for Headlines, Assignments, Article Library and Blog

A better solution for attaching videos to module instances. Easy attachment UI for video files and external sources via URLs. Responsive end user view with thumbnail and lightbox design.

This design affects end user rendering.

Design Team	
Architect	Heather Boyer
User Experience	Wes Hulsizer

📄 Thumbnail Design
📁 Site Manager Design Changes
  📄 Attachment List Fieldset
  📄 Attachment Types
  📄 Additional fields
📁 End User Design Changes
  📄 Desktop
  📄 Tablet
  📄 Mobile
📁 General
  📄 Google Analytics
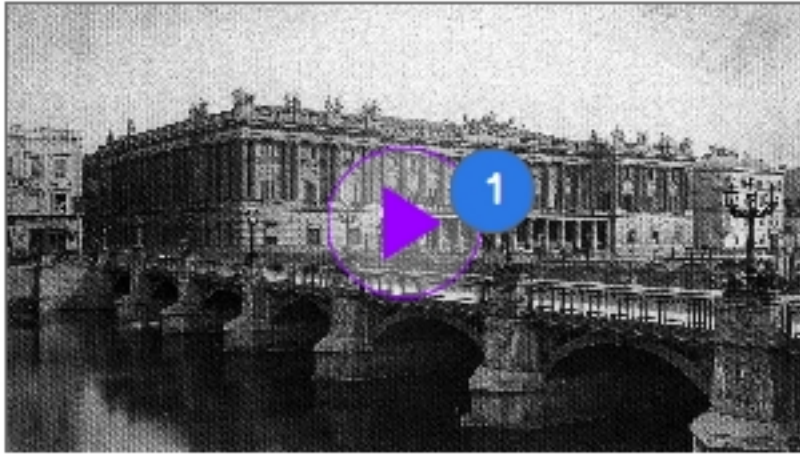 📄 Business Layer
  📄 Data Layer
📁 Visual
  📄 Assets

Summary

The thumbnail image (poster) should have the same height and width attributes anywhere it is shown on any device. The width should be 320px with a height of 180px. This includes in site manager, when scrubbing to find a thumbnail (poster) image.

Thumbnail

Bill Nye: Season 2 Episode 12 - "Balance"

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk 2

1 For the play icon, use class "bb-icon-triangle_play".

On hover over the image, darken the video behind the white play icon using opacity. and add a 2px white round/circle border around the play icon using border using border-radius property.

2 If the video was uploaded, no URL should be shown. If a oEmbed video, show URL.

Thumbnail OnHover

France in September

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

Attachment Fieldset

General | Directions | **Attachments** | Display Duration | Viewers

Attach videos by uploading or linking to external sources.

Add Attachment

Title	Actions
Bill Nye: Season 2 Episode 12 - "Balance" Youtube	Edit Remove
8thGradeScienceSection2 38MB	Edit Remove

☐ Activate on my page

Save | Cancel | Create E-Alert

---

1 Clicking on a record title or clicking edit brings up the additional fields screen for editing title and description fields only. Thumbnail can be edited if video was uploaded.

2 If video is uploaded, show file size under title.

3 If the video was linked through oEmbed, show the oEmbed provider.

4 Create a new tab for attachments list.

5 The placement of Attachments tab when editing or creating a record.

6 If there are no attachments, hide table and show "We noticed that you don't have any attachments. Click Add Attachment to get started."

7 For the video icon, use class "icon-attachment_video"

5 Tab Placement

Assignments App:

General | Directions | Attachments | Display Duration | Viewers

Blog App:

General | Posting | Attachments | Author | Tags

Article Library:

Article | Article Body | Attachments | Author | Display Duration | Accent Image | Viewers

Headlines and Feautres:

Headline | Headline Body | Attachments | Author | Viewers | Tags

URL Video

Attach Video   X

↗ From the Web
Link to a video from somewhere else.

≡ On my Computer
Upload a video from my computer.

(6)

Web Address:
For example, you can paste a link to a Youtube or Vimeo video depending on your school's policy.

[   ] **(2)**

[Cancel]   [Continue] **(3)**

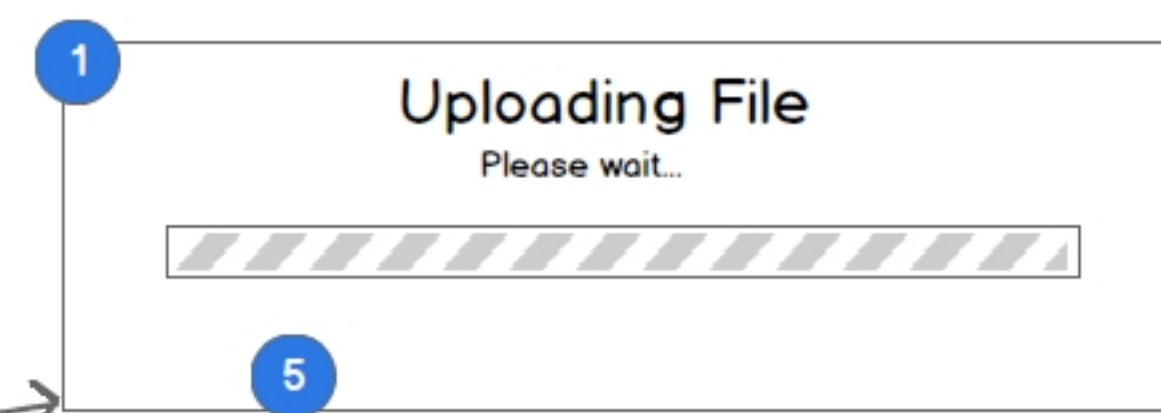
Upload Video

Attach Video   X

↗ From the Web
Link to a video from somewhere else.

≡ On my Computer
Upload a video from mmy computer.

Video File:
Click the browse button to search your computer for a file.

[   ] [Browse] **(4)**

[Cancel]   [Continue]

---

(1) Uploading File overlay can be seen when uploading a video through the Premium Video App.

(2) Use standard C2 validation for URL type on field.

(3) If URL validation passes, check if domain is supported. If not, show critical error in the blank area under the field. <div class='ui-error critical inline'>This video provider isn't supported. Check our list of supported providers.</div> Use the slideDownControl function to show the list of providers in a 3 column list.
If domain is supported, check for valid oEmbed response. If not valid, display oEmbed error message in the blank area under the field. <div class='ui-error critical inline'>Video not found. (use the response we get back)</div>

(4) Only show mp4 files available to be selected.

(5) Only allow video file uploads up to 500MB. If file is larger than 500MB, show critical error: <div class='ui-error critical inline'>This video file is too large. Uploads are limited to 500MB. You may upload your video to YouTube, Vimeo, or any of our other listed providers and then link to the video instead.</div> (use the slideDownControl function to show the list of providers, same as above.)

(6) ICONS: In the left column, use icon class "icon-ultra-link" for the URL option and "ultra-desktop" for the upload option.

---

(1)
Uploading File
Please wait...

[////////////////////] **(5)**

Summary

Show this screen on edit of an attachment, as well as, the second screen of the wizard dialog on creation of new attachment.

Additional Fields

Attach Video   X

Title:

Bill Nye: Season 2 Episode 12 - "Balance"

Description:

Video description goes here if exists.

② **Thumbnail Image:**
Slide the bar beneath your video to select an image.

① ———————————●——— 1:15:16

Cancel   Attach

---

① Dragging the scrub/seek bar shows the current frame with the current position on the bar.

Working prototype of the thumbnail selector can be found at http://jsfiddle.net/sarahardy/uknmfm3e/. The code might need modified a bit when integrated into product.

② If video is URL, change UA to say "You can change this image from the website where the video is stored." The seek bar should not be shown if URL video is used.

● For files linked by url, only allow edit on title and description (still show thumbnail, but don't allow it to be changed).

● For files that are uploaded, allow edit on title, description, and thumbnail. On edit, set video player for selecting a thumbnail to *Attachments->Thumbnail->FrameTime* value to show currently selected thumbnail.

Summary

The content associated with the apps and the way that content is displayed at end user is to be kept as existing. For Headlines and Article Library, show video attachments underneath the content in the detailed view only for that record. Blogs show the content directly on the page so the attachements should go directly beneath the main content (posting). Assignments show the detailed view on the same page, but after clicking the assignment title. Thus we will place the attachments under the assignment main content (description) in the detailed view.
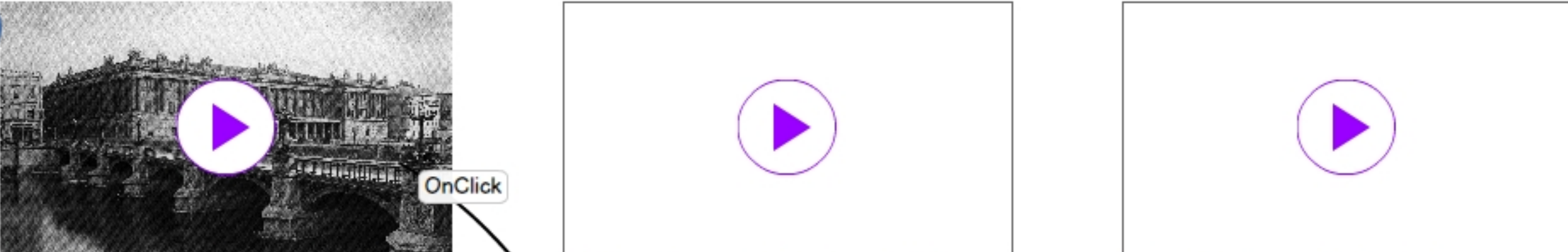
Desktop View

(mystart bar)

(banner and channels)

Keep as Existing

(nav panel)

Article Title

Article Body goes in this area here. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

1, 2

OnClick

Bill Nye: Season 2 Episode 12 - "Bala...
Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.
https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...
Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.
https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...
Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.
https://www.youtube.com/watch?v=jtkcah8M8nk

1 Each thumbnail should be ordered from left to right and stack vertically when multiple attachments are present per record.

2 Thumbnail is just an image. OnClick, show hidden video in center of viewport with modal.

Video Expanded

(mystart bar)

(banner and channels)

3

(nav panel)

...ut labore et dolore magna ...irure dolor in reprehenderit in ...cia deserunt mollit anim id est

Bill Nye: Season 2 Episode 12 - "Bala...
Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.
https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...
Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.
https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...
Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.
https://www.youtube.com/watch?v=jtkcah8M8nk

3 If uploaded video, use HTML5 video tag with controls.
With linked videos, show the oEmbed html player.

Tablet (landscape/horizontal)

Article Title

Article Body goes in this area here. Lorem ipsum dolor [Keep as Existing] g elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis no[...]ris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillu[...][...] Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

(1) Each view should stack additional attachments if not enough margin can be put between the thumbnails. Some tablets may be able to display two or more columns in potrait view.

Tablet (portrait/vertical)

Article Title

Article Body goes in t[...][...]r sit amet, consectetur adipiscing elit, sed d[...] Keep as Existing abore et dolore magna aliqua. Ut enim ad mi[...][...]tation ullamco laboris nisi ut aliquip ex ea c[...][...]rure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
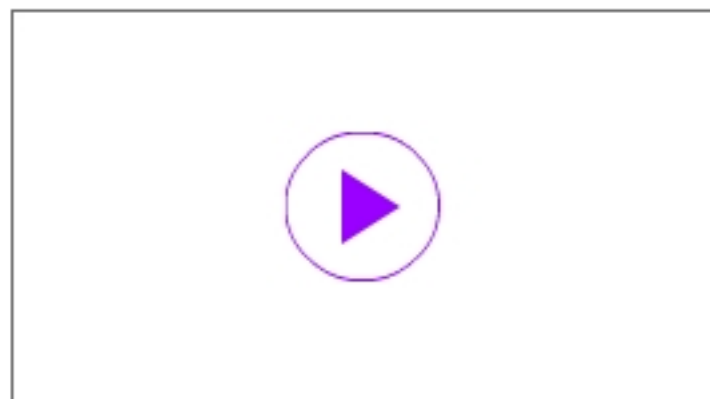
(1)

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Mobile (portrait/vertical)

Article Title

Article Body goes in this area here. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Keep as Existing

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Mobile (landscape/horizontal) 1

Article Title

Article Body goes in this area here. Lorem ipsum... adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. ... nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
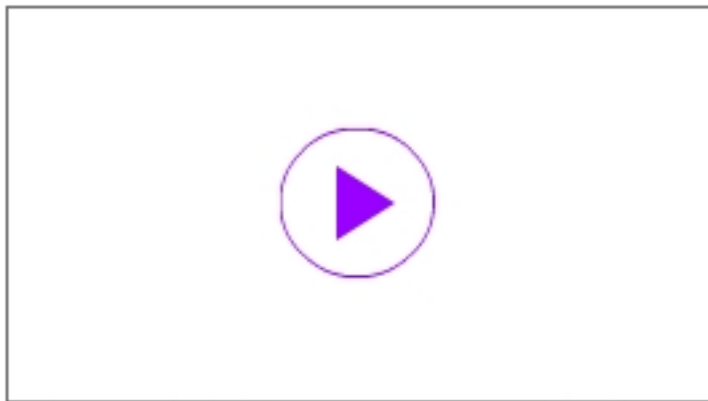
Keep as Existing

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

Bill Nye: Season 2 Episode 12 - "Bala...

Video description goes here if exists. Should wrap until reaching the bottom where the elipses should be used.

https://www.youtube.com/watch?v=jtkcah8M8nk

BUILDER TOOLS

Attachment Wizard

```
<SWCtrl controlname="AttachmentWizard" props="ID:divID;Label:Video;Description:;Attachments:[$FieldName$];
    FileTypes:MP4,;MultiUpload:true;WizardOptions:Upload,Link" />
```

      Options:

               ID - ID of the containing div for the element

               Label - The label to use for the title of the dialog and for the button to open the dialog

                      Example: *Attach* **Video**, *Add* **Video**

               Description - The description to display on the dialog under the title, if left blank, default to text using the label

                      Example: *Select a* **video** *location then choose your* **video**.

               Attachments - The flex data field that will store the attachments json object value

               FileTypes - The list of filetypes (extensions) the wizard will allow

               MultiUpload - The boolean value to determine if the Attachment control will allow multiple or single uploads

               WizardOptions - The list of options to choose from in the file wizard

                      Options: Upload, Existing, Shared, Link

Attachment View

```
<SWCtrl controlname="AttachmentView" props="ID:divID;Title:Attachments;Attachments:[$FieldName$]; />
```

      Options:

               ID - ID of the containing div for the element

               Title - If value defined, display an H3 Heading for the Attachments with the value defined

               Attachments - The flex data field that stores the attachments json object value

ATTACHMENT WIZARD

- New User Control, similar to File Wizard with additional functionality
- Include all properties that File Wizard has with the addtion of Label, Description, Attachments, MultiUpload, and WizardOptions
- Upload File:
    - Limit uploads to a max of 500 Mb
    - Save File to InstanceAssets location, *ModuleInstance/[ModuleInstanceID]/Data/[DataID]*
    - Use Video tag with a custom seeker to select thumbnail, like here. Use a hidden Canvas tag to generate thumbnail.
    - Store thumbnail image as base64 (retrieved by caling the *toDataURL()* method on the canvas tag) in Thumbnail property on json object for attachments.
- Link Attachments:
    - Use Oembed Standard http://oembed.com/
    - Compare url against the *cms.OembedProvider.Domain* property when determining if it is one we support.
    - Replace {url} variable on the *cms.OembedProvider.RequestUrl* property with the url the user types in the AttachmentWizard control.
- Store as an array of json objects in the defined Attatchments field, [$FieldName$], i.e. in a hidden field:

      `<input type="hidden" id="swdata-txtAttachments" name="swdata-[$FieldName$]" value="jsonObject">`

      json object:

```
[
  {
    Type: "video",
    Title: "string",
    Description: "string",
    Attributes: {},
    Thumbnail: {
        Image: "string",
        FrameTime: "string"
    },
    URL: "string",
    Size: "string",
    Source: "internal",
    SourceName: "string"
  }
]
```

Type - File Type - video, file, image
Title - Title assigned for attachment, may be user defined or autofilled if it exists
Description - Description for attachment, may be user defined or autofilled if it exists
Attributes - Where additional information for the file may be store, such as alt text for images *(not needed for videos at this time)*
Thumbnail - The json object for information about the thumbnail
Image - The Url or encoded value for the thumbnail image
FrameTime - The time for the video when the thumbnail image is captured *(will be used on edit of the file)*
URL - Url to the file, video, image, etc.
Size - Store the size of the file for internal files, if external, leave blank.
Source - The source for the file, i.e. "internal" if uploaded to the site or "external" if linked from an external source
SourceName - If the file is an externally linked file, then use the *cms.OembedProvider.Name* value, if it is an internal file, leave this value blank.

- Edit File Link:
    - Open the second dialog screen of the wizard.
    - Uploaded files (Attachments->Source = "internal") will allow edit for title, description, and thumbnail.
    - Set video player for selecting a thumbnail to *Attachments->Thumbnail->FrameTime* value to show currently selected thumbnail.
    - Links to files (Attachments->Source = "external") will allow edit for title and description (no edit on thumbnail, but will show thumbnail image).
- AttachmentWizard builder control will render the list, as well as, the dialog.
- Add AttachmentWizard to the Builder Toolbox. Put AttachmentWizard under the category *Upload & Wizard*
- Adjust ToolboxControls->SWControl to include MultiUpload under the true/false dropdown, add WizardOptions to the array builder tool (with FileTypes option)

ATTACHMENT VIEW

- New User Control (so it can be used in premium apps, as well)
- Parse through json object for each attachment object. Build out html sever-side. Assign Thumbnail value as <img> src. Assign URL value as <video> src.
- Video tag will be displayed in a lightbox.
- For external links, call the oembed endpoint again to get the html to render for the video (html will not be stored in the json object).
- Add AttachmentView to the Builder Toolbox. Put AttachmentView under the category *Rich Controls*

EXISTING APP ADJUSTMENTS

- Add AttachmentWizard builder control to Site Manager Edit Views for Headlines, Assignments, Article Library and Blog Apps.
- Add AttachmentView builder control to End User Detail Views for Headlines, Assignments, Article Library and Blog Apps.
- Add Attachment Flex Data Field to Headlines, Assignments, Article Library and Blog Apps.

DELETE ATTACHMENTS

- If ModuleInstance is deleted, delete folder and all files under the app instance folder, *ModuleInstance/[ModuleInstanceID]*
- If FlexRecord or Assignment record is deleted, delete all files under the InstanceAsset folder, *ModuleInstance/[ModuleInstanceID]/Data/[DataID]*.
- If individual record is deleted in the attachment list, just delete that specific file.

Add to Apps:
- Headlines
- Assignments
- Article Library
- Blog

Note: Currently supporting Video file types in this design, but Attachments will later support other file types, as well.

Existing/Shared options will come in a later design. Not necessary for just video.

<Video> Tag Reference - https://developer.mozilla.org/en-US/docs/Web/HTML/Element/video#attr-controls

Generate Thumbnail
See Code/Markup Example
(may need modified, ids, variable names, etc changed in the product)

```
function generateThumbnail(){
    var canvas = document.getElementById('canvas');
    var video = document.getElementById('video');

    //set canvas width/height to the height/width of the video, must be done prior to drawing the canvas.

    canvas.getContext('2d').drawImage(video, 0, 0, video.videoWidth, video.videoHeight);

    var videoImage = canvas.toDataURL(); //store value in json object for thumbnail as base64 encoded
    return videoImage;
}
```

Canvas.toDataURL() documentation

Headlines, Article Library, Blog *Modify			
Column Name	Data Type	Allow Nulls	Notes
Attachments	text	☑	array of json objects representing added files/attachments

cms.Assignment *Modify			
Column Name	Data Type	Allow Nulls	Notes
Attachments	nvarchar(max)	☑	array of json objects representing added files/attachments

gbl.OembedProvider *New			
Column Name	Data Type	Allow Nulls	Notes
OembedProviderID(PK)	int	☐	Identity - Primary Key
Name	nvarchar(100)	☐	Name of the Provider supporting oEmbed
Domain	nvarchar(100)	☐	The domain url for the provider
RequestUrl	nvarchar(250)	☐	The url to request the oembed object

gbl.OembedProvider *New		
Name	Domain	RequestUrl
Vimeo	vimeo.com	https://vimeo.com/api/oembed.json?url={url}
YouTube	youtube.com	http://www.youtube.com/oembed?url={url}&format=json
Viddler	viddler.com	http://www.viddler.com/oembed/?format=json&url={url}
Hulu	hulu.com	http://www.hulu.com/api/oembed.json?url={url}
College Humor	collegehumor.com	http://www.collegehumor.com/oembed.json?url={url}
nfb.ca	nfb.ca	http://www.nfb.ca/remote/services/oembed/?url={url}&format=json
Dotsub	dotsub.com	https://dotsub.com/services/oembed?url={url}&format=json
Animoto	animoto.com	https://animoto.com/oembeds/create/?format=json&url={url}
FunnyOrDie	funnyordie.com	http://www.funnyordie.com/oembed.json?url={url}
Ted	ted.com	http://www.ted.com/services/v1/oembed.json?url={url}
VideoJug	videojug.com	http://www.videojug.com/oembed.json?url={url}
Sapo Videos	videos.sapo.pt	http://rd3.videos.sapo.pt/oembed?url={url}&format=json
Dailymotion	dailymotion.com	http://www.dailymotion.com/services/oembed?format=json&url={url}
Coub	coub.com	http://coub.com/api/oembed.json?url={url}
Ustream	ustream.tv	https://www.ustream.tv/oembed?url={url}
Ora TV	ora.tv	https://www.ora.tv/oembed/{url}?format=json
Oumy	oumy.com	https://www.oumy.com/oembed?url={url}&format=json

Analytics Architecture

Parameter 1	Parameter 2	Parameter 3	Description
Apps	*App Type*	Attach *Attachment Type*	Call when the user clicks "Attach" button in the last step of the wizard.
Apps	*App Type*	View *Attachment Type*	Call when the user clicks on thumbnail from end user view.

Example for site manager event:

If a user attaches a video to an assignment, these parameters would be sent -

Apps, Assignments, Attach Video Link
or
Apps, Assignments, Attach Video File