Digitize THIS?!

Or

What to do with all those things people say they would like to see online, what it takes to get there, and do you REALLY want to go there.
Going digital—First steps
The first digital image was produced in 1920 by the Bartlane cable picture transmission system created by the British inventors Harry G. Bartholomew and Maynard D. McFarlane. The process consisted of “a series of negatives on zinc places that were exposed for varying lengths of time, thus producing varying densities,”.

In 1927, Philo T. Farnsworth established the first electronic television. This television used an electronic scanning tube as well as a cathode ray tube that could administer and display different images. In 1957, Russell Kirsch produced a device that generated digital data that could be stored in a computer; this was made possible by his use of a drum scanner and photomultiplier tube.

These different types of scanning ideas were the basis of the first designs of the digital camera. The first cameras took a long time to capture an image and were not ideal for consumer purposes. It wasn’t until the development of the CCD (charge-coupled device) that the digital camera really took off. The CCD became part of the imaging systems used in telescopes, the first black and white digital cameras and video recorders in the 1980s. Color was eventually added to the CCD and is the basis of color that exists in cameras that we use today.

Digital imaging was developed in the 1960s and 1970s, largely to avoid the operational weaknesses of film cameras, for scientific and military missions including the KH-11 program. As digital technology became cheaper in later decades it replaced the old film methods for many purposes.
The **charge-coupled device** was invented in 1969 at AT&T Bell Labs by Willard Boyle and George E. Smith. The lab was working on semiconductor bubble memory when Boyle and Smith conceived of the design of what they termed, in their notebook, "Charge 'Bubble' Devices." A description of how the device could be used as a shift register and as a linear and area imaging devices was described in this first entry.

The essence of the design was the ability to transfer charge along the surface of a semiconductor from one storage capacitor to the next. The concept was similar in principle to the bucket-brigade device (BBD), which was developed at Philips Research Labs during the late 1960s.
The first digital camera was created December 1975 by Steve Sasson, an Eastman Kodak engineer. He is regarded as the inventor of the digital camera. In a 2007 blog post, Mr. Sasson wrote:

“. . . It had a lens that we took from a used parts bin from the Super 8 movie camera production line downstairs from our little lab on the second floor in Bldg 4. On the side of our portable contraption, we shoehorned in a portable digital cassette instrumentation recorder. Add to that 16 nickel cadmium batteries, a highly temperamental new type of CCD imaging area array, an a/d converter implementation stolen from a digital voltmeter application, several dozen digital and analog circuits all wired together on approximately half a dozen circuit boards, and you have our interpretation of what a portable all electronic still camera might look like. . . .”

The 8 pound camera recorded 0.01 megapixel black and white photos to a cassette tape.

The first photograph took 23 seconds to create.
Recording is one thing, playback is another.
Things have advanced considerably in the intervening years . . .
And let’s not forget the most ubiquitous form of digital camera . . .
But what about all those non-digital things . . .

. . . like newspapers . . .
... or original, analog, photographs...
or exceptionally large hand colored copper plate engravings...
or original, holographic texts...
Digitization flow – selection, preparation, digitization, cataloging, presentation

First, you have to select the analog material to be digitized . . .

• Do you own it? That is, do you have the copyrights to the piece? Is it out of copyright?

• If it is still covered under copyright, do you have permission to use it? If so, do you have to pay a fee to do so?

• Does anyone (other than you) REALLY want to see it online?

• Does the item relate to something larger thereby increasing its “worth” and thereby helping justify the rest of the work you are about to commit to?

• Is the item in good enough physical condition to survive the digitization process?

• Are you sure?
Digitization flow – selection, preparation, digitization, cataloging, presentation

Second, you have to prepare the analog material to be digitized . . .

• Does the material need to be unfolded? Flattened? Uncurled?

• Do you have the materials / staff / expertise / experience to do the prep work in-house?

• Do you have a budget for prep work if you need to send it out?

• Can you adequately house the newly prepared material? Do you have the space / appropriate housing materials / money / environmental controls?

• Do you have a prepared procedure in place to handle the flow of materials during this process?
Digitization flow – selection, preparation, digitization, cataloging, presentation

Third, you have to actually convert the analog to the digital...

- Do you have the equipment / staff / expertise / experience to do the digitization work in-house?
- If not, do you have a budget to send the materials out of house to be digitized?
- Do you really want to send your unique materials out of house? If so, how will you ship it safely / insure it?
- When you have the digital files on hand, can you store them adequately for the long-term?
Digitization flow – selection, preparation, digitization, cataloging, presentation

Fourth, you have to provide intellectual control for the new digital items. . .

• Do you have the staff / expertise / experience to do the cataloging work in-house?

• If so, do you have a standard you use for ALL of your materials, analog and digital?

• Intellectual control of your materials is a key component of digitization. Do you have the time and money to do a good job once? If not, what makes you think you’ll have the time and money to REDO it later?
Digitization flow – selection, preparation, digitization, cataloging, presentation

Fifth, you have to provide access to the new digital items.

- Do you have the staff / expertise / experience to provide access in-house?

- If not, do you have the money to outsource access?

- If you outsource access, can you be sure your digital assets will be safe and remain under your control?

- How will you track use of your digital assets? Someone sometime is going to want to know if the cost is worth it.
Digitization flow – selection, preparation, digitization, cataloging, presentation

- Keep this in mind – the end user never sees the work it takes to make items available via the Web and they never pay for that work... you do.

- If you really want to provide access to your materials by serving them to the public digitally try to be sure the public actually wants to access them.

- It is often difficult to resist being pushed into a project before you are ready to accomplish it correctly the first time.

- If you don’t do the job right the first time there probably won’t be a second time.