Communication Wise

What's wrong with my PDF?

When it comes to interactive PDF forms, technology has not delivered all it has promised. Despite so much technology being available, why isn't the world alive with interactive PDFs and why doesn't the PDF you just created work as expected?

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> "... browser plugins were not created for completing interactive PDF forms. They were created for viewing static PDFs."

Creating interactive PDFs (the form designer's perspective)

Creating an interactive PDF is a three-stage process. All interactive PDF forms start life in another software application, such as InDesign, Publisher, Word or Illustrator (stage 1).

The form is then converted to a static PDF file (stage 2). At this stage the only thing the user can do with the form is print it and fill it out by hand. We often refer to this as a 'print-blank' form or a 'print-and-fill' (but let's stick with print-blank for the purpose of this article).
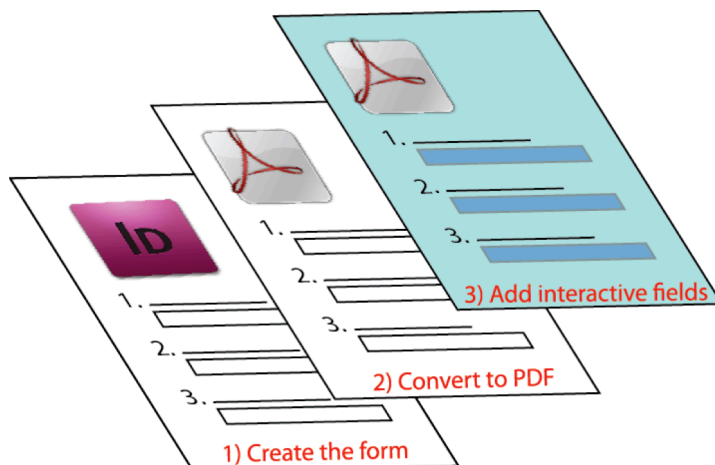
If you want your form-filler to complete the form online (that is, type into the fields on the form), you have to add the interactive fields (stage 3). This is done using Adobe LiveCycle or Adobe Acrobat Professional (previously referred to as Adobe Writer). Once the fields are overlaid, you have an interactive PDF.

All things being equal, we should expect that even a basic interactive PDF should work online. After all, the 'p' in PDF stands for 'portable' (meaning portable across platforms).

Accessing interactive PDFs (the form-filler's perspective)

Creating an interactive PDF is only one side of the equation. Once it is created, the form-filler needs to be able to use it and herein lies some of the major challenges of interactive PDFs.

The most logical place a form-filler will find an interactive PDF is on a company's internet site.
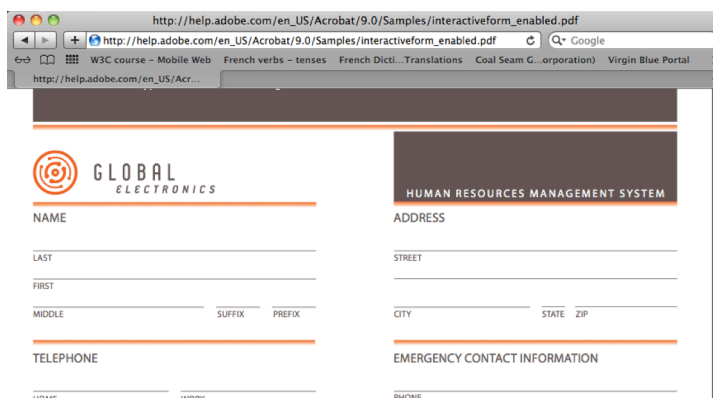

Diagram 1: opening a form inside your browswer

When the form is opened, it opens automatically inside the web browser using an Acrobat Reader plugin. Each browser has their own version of a plugin and they do not always cope well with interactive PDFs. They are usually excellent for viewing PDFs but do not always handle the functions built into an interactive form.

Try it and you will see what I mean. Go to the web address below and use as many different browsers as you can to open the form below (this is simply a form I have selected at random for illustration purposes only).

http://help.adobe.com/en_US/Acrobat/9.0/Samples/interactiveform_enabled.PDF

If this form opens in your browser window, complete the fields and then save the form to your desktop. Notice the information you entered did not save with the form.

Now navigate to the PDF you just saved and open it using Acrobat Reader. Complete the fields and save the form again, close it and reopen it. Notice this time the information you entered has been saved with the form (of course, I am assuming you are using a recent version of Acrobat Reader for this to work).

Diagram 2: Opening the form using Acrobat.

On my computer, I use both Firefox and Safari. If I access the Global electronics form using Safari, the PDF automatically opens inside my browser.

Diagram 3: Using Firefox

On the same computer, using Firefox to access the form, I am given an option as to whether to open the form in Acrobat or Firefox (see Diagram 3).
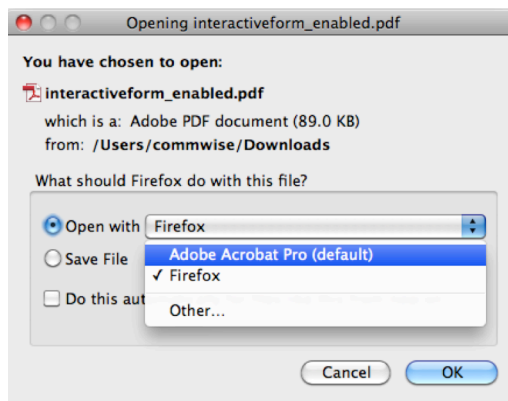
The problem is, all browsers behave a little differently. Even with the same browser the user can set their own preferences (such as whether they will block or unblock javascript, java and pop-ups).

So two people with exactly the same version of a browser can experience differences in how the browser reads a PDF. See the problem?

Some browser issues

Unfortunately, on most browsers, the plugin is the default option for opening PDFs. To change this default setting, the form-filler must know how to disable the plugin (ask the next ten people you see if they know how to do this and you I would be surprised if 50% of them know how to do this). The end result is that the form designer has very little control over the form-filling process.

So the issue with opening (and completing) interactive PDFs through the browser is two-fold. Firstly, if there are compatibility issues generated by upgrades, browsers can have trouble displaying PDFs. When the PDF does display, some of the functionality embedded in the form may not work.

So let's look at some of the issues specific to a number of browsers.

Firefox plugin

*"Firefox 11 does not display PDF files.
It just shows a blank screen."*

In November last year the following comment was posted on http://support.mozilla.org/en-US/questions/925055.

> "Since updating to Adobe Reader 10.1.3, I noticed **Firefox 11 does not display PDF files**. **It just shows a blank screen.** The only workaround I found is disabling the Adobe Acrobat NPAPI Plug-in (ver. 10.1.3) the update installs. Firefox will prompt which application to use. Choosing Preview allows the PDFs to display correctly. Neither Chrome or (sic) Safari exhibit this behavior, nor does Firefox 11 (Windows) with the update installed. Has anyone else experienced this?"
> (Text bolded by author.)

One reply suggested the following:

> "I've found another workaround to this problem. If you open Firefox 11 in 32-bit mode, it will be able to display PDF files. To open Firefox in 32-bit mode, quit Firefox, go to the Applications folder, right-click on Firefox and click on "Get Info". Then, under General, you should see a checkbox where you can have Firefox open in 32-bit. Close this window and restart Firefox and you should be good to go."

Google Chrome

Viewing PDFs in Google Chrome is also not necessarily a smooth process. On the Google support site we see the following:

> "Follow the suggestions below if you're having trouble viewing PDFs within Chrome, using Adobe Acrobat or Adobe Reader. **First check if the issue is specific to Chrome.** (…) If the issue is specific to Chrome, try the following solutions in the order that they're listed:

Check for updates to Chrome, Adobe Reader and Acrobat.
Check your Adobe Reader and Acrobat settings.
Repair your Adobe Reader or Adobe Acrobat installation.
Uninstall either Adobe Reader or Adobe Acrobat.
Uninstall and reinstall Adobe Reader and Acrobat."
http://support.google.com/chrome/bin/answer.py?hl=en-GB&answer=142056

Safari plugin

<p style="text-align:center; color:#c0392b;">"Acrobat plug-ins before version 10.1.3
are incompatible with the Safari 5.1."</p>

Information on the Adobe help site indicates compatibility issues with the most recent version of Safari and the Adobe Reader plugin.

> "Adobe Reader plug-in and Acrobat plug-ins before version 10.1.3 are **incompatible with the Safari 5.1** browser that shipped with Mac OS X 10.7 and for 10.6. The Adobe Reader and Acrobat stand-alone applications are unaffected and Safari 5.1 renders PDF documents natively. However, the Adobe Reader and Acrobat browser plug-ins before 10.1.3 don't function as expected in LiveCycle and Acrobat workflows that require either plug-in to render PDF documents in Safari 5.1."
> http://helpx.adobe.com/x-productkb/multi/safari-5-1-incompatible-reader.html
> (Text bolded by author.)

The workarounds (on the same website) offered by Adobe included:

> Options include the following:
> • Continue to use Safari 5.0.x and Mac OS X 10.6.
> • Upgrade to Adobe Reader or Acrobat version 10.1.3 or later.
> • **Save the PDF file from Safari to the computer, and then open it directly in Adobe Reader or Acrobat.**"
> (Text bolded by author.)

It is probably fair to say that bowser plugins were *not* created for completing interactive PDF forms. They were created for viewing static PDFs. The plugin allowed people surfing the web to open PDFs inside the browser rather than have a second application (Acrobat Reader) open. It was an issue of convenience.

Not just an issue of viewing/displaying PDFs

The problem with browsers goes beyond just being able to view a PDF using the plugin, it is also about the functionality that is available when the interactive form does display.

In July last year, Steve Werner wrote "I found that many PDF readers on both computers and tablets didn't support interactive PDF features well." (http://indesignsecrets.com/finding-the-best-tablet-pdf-reader.php)

Although browsers continue to evolve and issues of compatibility are overcome with time, the fact is that many browsers simply do not handle the functionality embedded in interactive PDFs. The functionality is really handled best by Acrobat Reader because the plugin that allows the PDF to open inside the browser is not a substitute for Acrobat Reader.

From a form designer's perspective, it is devastating to spend days, weeks or even months on a form trying to create a technologically advanced form only to have the form fail because of the technology itself.

Instructing your audience

In a perfect world one of two things need to occur for us to reap the potential benefits of interactive PDFs. Either:

- the browser plugin needs to become a perfect substitute for Acrobat Reader (this is not likely to occur soon)
- or the user needs to become accustomed to the idea that interactive PDF forms should be treated differently to a static PDF document (that is, they should be opened using Acrobat Reader, not the browser).

As a standard practice I now try to encourage the form-filler to complete my forms using Acrobat Reader (see Diagram 4). This means:

- opening the PDF using the browser window
- saving it to their hard drive
- opening it in Acrobat Reader
- completing and saving the form from their hard drive.

Diagram 4: Adding instructions to interactive PDF forms.
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In other words, I ask my audience to do a little extra work for I consider to be a lot of extra gain.

This sounds like a long-winded way to deal with what should be a simple issue but the more we can train our audience to do this, the more advantageous it will be for all.

By saving the form to their computer and completing it in Acrobat, the form-filler gains the advantage of retaining a soft copy of the form they submit and the designer is able to embed functionality in the form that they know will be handled appropriately by Acrobat Reader.

So if you've ever completed an interactive PDF form and handed it over to the client only to be told that the form "doesn't work" this article may go some way to helping you understand why.