

# The Old Shoebox Newsletter

Adventures in modern technology by Marlo E. Schuldt

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## The Inkjet Money Pit

*How much does inkjet ink printing really cost?*

Two things always cause a cold chill to run down my spine. The shiver is stimulated whenever I reach for my wallet to pay for gasoline or inkjet cartridges. Both items are continuing to increase in price as we use more of these semiprecious fluids.

I have been putting off writing about inkjets for over a year. "It's kind of a messy and expensive proposition." While doing my research, I discovered things that were beyond belief and sadly amusing.

My goal is to help you understand how much money you are spending each time you use your inkjet printer. The best estimates I found indicates you are spending about \$1.50 to \$2.00 to print a page. Remember there are hidden costs - ruined prints, head cleaning that also add to costs..

I will start on this side of the page with recommendations for those of you that do not have time to read my rambling article on the left side.

1. **Expensive.** Inkjet printing with photo paper is probably a little less expensive than heating your home, filling your car with gasoline and paying health insurance premiums. A \$15 inkjet cartridge containing 5 ml of ink equates to about \$3000 per liter. **Breathe - don't pass out** – just take a few deep breaths and don't tell anyone how often you buy cartridges.
2. **Avoid your inkjet printer.** Now you know why inkjet printers are so cheap. They might as well have an automatic withdrawal hooked up to your bank account.

Save money by copying your images to a CD or thumb drive and then take it to an economy print company or use an internet print company. Costco has the best prices and largest variety of paper sizes. Wal-Mart is next. There are also many online companies that print for economical prices. The negative is waiting to get your prints and paying postage.



### Why do we keep buying inkjet cartridges?

Possible answers:

1. Inkjet printers are so cheap and come with many new computers so we feel great about using our new “free” printer.
2. We are apathetic about making someone else rich each time we print something.
3. It's easier to click the print button than to bother with printing somewhere else.
4. We want it right now!!!

These questions caused me to reflect back to my first lesson in marketing while I was working in my dad's gas station.

I wondered why the price of gas was 24.9 cents a gallon (boy that puts a date on my age).

I asked dad why he didn't just put 25 cents a gallon on the sign. It was even easier to post since it only took two numbers. He told me oil companies priced a gallon of gas to make it look like it cost less.

He was right and I soon found that almost everything I purchased ended with a 99 or 95 or 98 cent price tag. It still works today. Gasoline is a bargain at only \$2.99 a gallon. \$3.00 is just too much and even looks worse.

3. **Use Heritage Collector's new StoryBook module.** Make wonderful photo pages with captions. Easily have the images printed by copying image files to a CD or thumb drive or e-mail for economy printing.

4. **Paper is important.** Make some test prints before spending a lot of money on printing. Ask questions and do your research to determine if the paper is high quality, archival quality (acid free). Costco prints on the highest quality Fuji Film paper. It is burned into the paper and not an ink saturation process. *I do not work for Costco and I don't get kickbacks for mentioning them – they just have great prices and high quality and they are fast – two hours or one day.* More about this in the article.

5. **Avoid inkjet printing.** Make sure the print company is not using an inkjet printer since inkjet prints degrade quickly. Inks are improving but it is still not the best or archival quality. There are new professional grade inkjet inks that are more permanent - ask.

6. **Water soluble.** Most home inkjet printers use water soluble (aqueous) inks. This means the print will be ruined if it comes in contact with a small droplet of water.

7. **Color laser printers are less expensive.** It's more expensive to purchase a laser printer but over time it will pay for itself in savings. Don't be fooled with cheap color laser printer sales.

Make sure you don't have to replace the drum in the laser printer. A replacement drum is almost as expensive as the printer. If you see a stack of drum replacements under the printers that's a bad sign.

Some HP color lasers include the drum with the toner cartridge so you get a new drum(s) each time the toner cartridge is replaced. This also gives you better print quality. Many laser printers do not come with a cable or cartridges so check before you buy. **READ THE CUSTOMER REVIEWS** on Amazon before buying any printer. There are many hidden problems you need to learn about **BEFORE** you buy a laser printer.

8. **Use refills.** Find a good company to refill your inkjet and laser cartridges. You will save a lot of money. I can't tell any difference in quality. Some say the ink doesn't last as long or may be less vibrant.

So an inkjet cartridge with a price tag of \$29.95 isn't really \$30.00. Besides, \$30 dollars is a lot to pay for a cartridge. An even better deal is two cartridges for less than \$58.95 because you are saving \$5. However, you just spent almost \$60 to save \$5. Great logic until you realize you are spending more money no matter how much you are saving so you can conveniently print twice as much! Is this why the printer companies are so anxious to share all their beautiful free graphics on their web sites - for us to print more?

First, let me try and put the cost of ink into a context we can all relate to.



When was the last time you went to the market and purchased a premium cut of meat that was \$19.95 a pound? If you did, I'll bet it

was a very special occasion. You might get a little upset if I insist you make this purchase every two or three months. You will probably throw a little tantrum and say you don't have that kind of money to spend on something to be consumed on a regular basis.

If you are not a carnivore, let's have you purchase a special herbal drink with lots of antioxidant vitamins, minerals and a blend of exotic medicinal tropical fruit juices. It's not a concentrate or mix, you just drink a little of it each day. The worst part is that it is a highly addictive substance and it only works if you drink it out of a very expensive, one use only paper cup. Sit down – the cost will only be \$19.95 for .064 a fluid ounce for this amazing liquid gold. You read correctly.



Check your inkjet manual since some printer companies indicate that using other cartridges may void the warranty. *Big deal – you will still save more than the printer is worth using refills.*

9. **Don't refill your own cartridges** Save your money, hands, clothes and frustration. More below.
10. **NEVER take an inkjet cartridge out of an Epson printer to check it.** The printer will reset the chip in the cartridge to read empty and the printer will then not print anything. You will either have to have it reset or buy a new cartridge. I recently discovered that nasty little "gotcha". Hopefully this is not true for all Epson printers but I'm not going to find out or do any more research so be careful. I know this is not true for HP inkjets.
11. **Have a good laugh.** Go to the following internet sites for a real laugh but a shock about how much your inkjet printing really costs. Take a look at the following sites. I can't promise how long these sites will be up so don't wait.

**Shocking truth about the cost of inkjet cartridges**

<http://www.youtube.com/watch?v=aA-uN2Dmn0M>

**Inkjet Refill Disaster!**

<http://www.youtube.com/watch?v=OxkMBpf9YGg>

OK – you know I’m talking about buying an inkjet cartridge. Maybe you should start stockpiling inkjet cartridges since they rival the price of gold and they’d be a good hedge against inflation or a bad economy. *We all know that the economy always goes bad during an election year - so you have been warned to stock up.*

Our next example involves mathematics which was not my best subject in school so the following exercise will be even harder to understand and I’m not much of a cook either.

The shrewd people that market inkjet cartridges must know that most of us cannot calculate metric volume measurements since they use obtuse ways to label the quantity in millilitres or mL.

So what’s a millilitre? I just learned this from one of those “What is” web sites.

***“The millilitre is defined as one cubic centimetre and one-thousandth of a litre. It is a very commonly used measurement, especially in medicine. The SI symbol for the millilitre is mL***

Wow, I’m really impressed. Kind of makes my inkjet cartridges seem more special since it has a medical measurement on the box I’m sure glad I asked that question – *NOT*.

Unfortunately I’m now even more confused about how much ink is really in my inkjet cartridges. I’ll stick to the measuring cup in the kitchen since I can put milk in it and try to “see” exactly how much .064 mL is.

First I’ll get out the old heavy Pyrex measuring cup. Next, I don’t need to worry about wasting a lot of any milk. I can wait until we finish the carton of milk since there will be plenty of milk remaining in the bottom for my measurement experiment.

I did the experiment. My conclusion – a milliliter is really not much and then to think that most inkjet cartridges contain much less than ONE mL fl oz just boggles my mind. I guess the size

and weight of the cartridge makes me feel a little better about the \$19.95 – \$79.95 price range.

### **Should You Refill Your Own Cartridges?**

There are other less expensive alternatives – refill your own cartridges. The ads say it’s fast, easy and you will save big bucks. Fortunately for you and unfortunately for me I’ve also been there and done that.

You can save a lot of money – if you do it correctly and that’s **NOT** easy. The biggest problem is getting all the air out of the cartridge when you refill it.

One trick I used after refilling cartridges was to hold it firmly in one hand while wildly swinging it in a circle to force the air out. This is also a great way to make an art statement on your kitchen walls with colorful ink splatters. Oh, I forgot. You are supposed to put black electrical tape over the openings. **IT COMES OFF**. This is a liquid!

You can also get the excess air out of the cartridges by running several cleaning cycles through your inkjet printer but that uses a lot of ink which will negate the savings of filling the cartridge.



*I think I had way too much milk in the cup!”*

*I’m sure glad I used milk because I wouldn’t be able to see .064 mL of water.*

Messy – that would be an understatement! Most refill kits come with a set of rubber gloves – *interesting*.

I was never able to refill cartridges without getting ink all over my hands and ruining whatever shirt I was wearing no matter how careful I tried to be.

A tiny hole in the rubber gloves traps the ink inside the gloves so it can take more time to permanently saturate your fingers and cuticles.

If you refill, you will also need to warn all your friends that you don't have leprosy and that you are not moonlighting at the local tattoo parlor.

*Caution* – never go out to dinner the same day you fill inkjet cartridges. Why? Your spouse will probably sit at another table and wink at you from across the room and the busboy will probably toss everything away that was on your table that you touched after you leave.

Go to this site and watch this entertaining video about refilling cartridges:

<http://www.youtube.com/watch?v=OxkMBpf9YGg>

### **Educate Your Children in Advance**

Your inkjet refill kit will resemble drug paraphernalia complete with syringes and several bottles of ink with exotic names younger children will not be able to read.

Refilling late at night after the kids are in bed is not recommended since they might “catch” you holding up a big syringe filled with bright magenta ink not to mention all the strangely enhanced vocabulary you will be mumbling under your breath. That will make them think you're also sniffing the ink to get high.

So how much does it cost to print using your inkjet printer? Seems like a simple question. It's not easy to answer because here again the marketing people use indirect ways to explain things so you only think you understand but are too embarrassed to ask.

Most color print cost estimates are computed with a formula based on printing with 20% color coverage. This makes the cost of color printing only pennies per page. That's great in the business world. However, most of us are printing photos so a more accurate measure would be 80% coverage per page so you'd need to dramatically increase the per page cost by at least 70%.

The only real way to figure the cost of printing is the same way you compute gas mileage for your car. Fill the tank and write down the current mileage. The next time you fill your tank (scary) divide the number of gallons by the number of miles.

For printing costs do the same thing. When you put in a new cartridge keep track of how many pages you print until you need a new cartridge. Don't forget to add in the cost of the expensive coated photo paper you use.

You might want to consider just buying a new printer the next time you need to fill all your cartridges. It might be cheaper and you will be getting a new printer.

One word of caution. The printer might be cheap but check out the price of the replacement cartridges before you buy any new printer since you will be spending many times more for the ink.

More expensive printers use bigger cartridges that cost less to purchase when compared to the cost of buying small cartridges with a lower volume of ink.

The people that refill my inkjet cartridge tell me that many of the printer companies supply cartridges for new printers that are not full – nice!

You should watch the little movie on youtube about the cost of inkjet cartridges.

I can't verify the actual cost estimates but you will get the idea. Here's a little summary of what you will see in the movie:

Bottle of Chanel #5 = \$75.00

**Filled with inkjet ink = \$306.00**

MD Skincare Hydra-Pure = \$120.00.

**Filled with inkjet ink = \$153.00**

2007 Ford Expedition gas fill up - \$100.00

**Inkjet fill up = \$386,070.00**

Here's the link for the movie.

<http://www.youtube.com/watch?v=aA-uN2Dmn0M>

## **Inkjet Printing Costs**

I have spent quite a lot of time researching printing costs for inkjet printers. It's not an exact science and has many variables.

The best cost estimates for an 8 ½ X 11 inch color inkjet print ranged from \$1.50 and \$2.00 per print. This was based upon getting the best price for cartridges and coated paper.

Bottom line: Printing at home is very costly and the prints will probably fade more quickly than using a professional photographic print process.

## **Paper**

The paper, ink and print process work together. All three elements need to be the highest quality possible. The importance of high quality paper can not be overestimated.

The paper is what preserves the ink and needs to last for a long time. Don't be tempted to print your photos and StoryBook pages on inferior paper no matter how much you will be saving.

In the future, your hard work and savings will not be worth much if your photos are faded, washed out and yellow. *This is definitely not the way to get an old antique look.*

Ask about the paper, ink and process being used if you are planning to use a local print

shop. The key words are archival quality (acid free) photographic paper.

If you are going to use one of the popular web sites for printing be sure to research the printing process, ink and kind of paper being used. This information should be easy to find since most printers want to emphasize their strengths – not bury them.

It's a bad sign if the information is hard to find or nonexistent. Consider sending an e-mail to their customer support and ask before you order prints.

I spent considerable time trying to find information about the process and paper used by a few internet printing companies

This is what Snapfish reports. This all I could find in their FAQ.

### **“What kind of paper does Snapfish use for prints?”**

Snapfish uses top quality HP paper.”

This statement took a very long time to track down and doesn't exactly give me that warm fuzzy feeling regarding the quality of the paper. Specifically what kind of high quality HP paper are they taking about.?

**PhotoWorks.** “We use the latest digital printers to expose your photos on archive quality Kodak photo paper. We offer a choice of either glossy or matte finish paper when your order.”

I didn't see the magic words “Archival or acid free paper” so I'd suggest more research. I would assume Kodak paper should be of highest quality but i could not easily verify what I was looking for.

**Target Photo Center.** They were quick to point out that they use the Kodak Perfect Touch System. I found a lot of information about how great this digital processing is but not a hint about the quality of the paper.

After 20 minutes of searching Kodak's site and the internet, I could not find a definitive description about the paper specifications or what kind paper Kodak uses. I'm assuming Kodak uses high quality, acid free paper but I can not verify that. *Caveat emptor.*

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