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Don't let sloppy hyphenation and justification ruin your pages!

Gaps

By EDA WARREN



hen the topic of hyphenation and justification comes up in my design classes, students' eyes glaze over. "H&J," an old industry term, sounds like one of those esoteric things you can surely do

without. After all, has anyone ever told you, "Your H&J needs a re-do!"? Yet there you are, perusing a page of justified text that has big gaps between words (especially where there are text wraps), and instead of reading across, your eyes inevitably drift downward, following the cascading sequence of gaps. Oh my. You're experiencing the dreaded phenomenon known as "rivers of white space." Then you glance across the page and your eyes flit between several dark patches where words are uncomfortably crunched together. More problems.

Maybe you set your body copy with flush-left alignment and these problems don't plague you. Yet the nagging feeling persists that your three columns of text are not up to par. You notice numerous short lines sprinkled throughout with as few as four words per line, and gutters that look twice what they're spec'ed. Will readers get discouraged, struggling to read?

Even Typographic Color

These examples of poor readability are the classic symptoms of H&J neglect. We hyphenate, whether text is flush left or justified, to achieve what's known as even typographic color. When you squint your eyes as you look across the page or spread, you should see an even and consistent grayness in the body copy. If type is justified, the composition engine may expand or contract word spaces, letter spaces, and perhaps even horizontally scale each character to achieve flush edges. The effective color gets lighter when spaces are expanded, and darker when jammed together. With these uneven patches, the page takes on a blotchy look.

Turning on hyphenation and setting appropriate controls lets you even out the color by breaking up words at the line ends, either reducing or opening the space between words and letters as needed.

With flush-left text, the word and letter spacing is typically controlled by the font designer, and assuming you're using type from a good-quality foundry, consistent spacing is built into the font. But there can still be uneven typographic color at the line ends. Lines with only four words may be sandwiched between lines that extend the full width of the column or frame. Without proper hyphenation, this kind of range between the shortest and longest lines creates an unevenness

What is H&J?

Long before computers became desktop machines, Hyphenation and Justification (H&J) have been paired as closely as peanut butter and jelly. And for good reason. When type is fully justified with word- and letterspacing, text can look horrid unless some lines are hyphenated. Without those small hyphens to help even out the spacing, individual syllables to be exact, the difficult job of justifying falls heavily on those word spaces. Since newspapers and books have pretty much always had justified text, not to mention illuminated manuscripts, it's long been well known that it takes two to tango—H and J together or readership suffers.



in the color at the line ends. By introducing more hyphenation, the range can be narrowed, resulting in a more even flow.

Either way—flush left or justified—achieving an overall consistent spacing in your body copy is one of the most important principals of typography. The goal is to communicate your message so that readers can absorb it without the distraction of uneven light and dark patterns. If your type is not well-set and doesn't invite the reader in, you're likely to lose your audience. Although hyphenation is not a one-size-fits-all solution, it's also not rocket science. With a little effort, you can easily fix these problems, adding immeasurably to the positive experience your readers will have as they absorb your message.

The Big Four

Now that you understand why you need hyphenation, there are four questions to answer on the

road to good hyphenation: how, which, when, and where. *How* do you turn on hyphenation? *Which* method will you use to apply hyphenation? *When* is a hyphen needed? And once there's a need, *where* will a hyphen be inserted?

Here's a hint—all the answers are pretty straightforward except "the when," or the frequency of hyphenation. Your choices in the Hyphenation and Justification dialogs (Window > Control > Paragraph view) (Figure 1) have a big impact on all of these outcomes.

The How: Turn on Hyphenation

After placing text, click inside it with the Type tool and go to Edit > Select All (Cmd-A/Ctrl-A) to highlight all the text of the story. Go to the Control palette, paragraph view, and click the Hyphenation check box. What a difference! InDesign instantly transforms paragraphs (Figure 2).

Note that while the checkbox is on by default,

Figure 1: Only in illustrations can you select both at the same time!

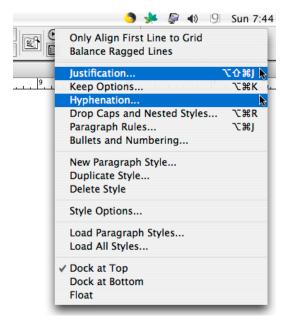


Figure 2: The first step in getting good hyphenation is turning it on. Here are two sets of text before and after hyphenating—on the left, justified text, and to the right, flush-left text. Note the Hyphenate checkbox on the Control palette, which indicates whether these selected paragraphs are hyphenated.











hyphenation may not be automatically applied to placed text. Kind of confusing? The default hyphenation applies automatically when you type text into a new frame. But when you place text, then click in the story or highlight text, the Hyphenate checkbox most likely is not on! Be aware.

The Which: Adobe Paragraph Composer

InDesign has two hyphenation methods, and the Adobe Paragraph Composer is the default. Leave it that way! The Paragraph Composer is one of the most important typesetting innovations Adobe has introduced in page-layout software, bringing the quality of desktop type much closer to what a dedicated typesetting machine could do. In traditional typesetting, the hyphenation engine would assess the needs of an *entire* paragraph at one time, choosing the most strategic lines to hyphenate for best overall results. With the introduction of the Paragraph Composer, you have that same advantage.

Your other choice is the Adobe Single-Line Composer. It examines one line at a time, starting from the first to the last line of a paragraph, and, in each case, decides whether or not to hyphenate based on the policies and parameters set. Because it doesn't deal with the paragraph as a whole, you can get some pretty bad line breaks toward the end of a paragraph.

The only time I switch to the Adobe Single-Line Composer is when I want to hand-rag my type; that is, manually control the in-and-out profile of the line endings. (See the sidebar "Hand-Ragging

Type.") If your type is flush left, very visible, and not lengthy (advertising copy is a good example), it's not unusual to manually control every line break. When the Paragraph Composer is on and you're trying to manually control the rag, changes you make on one line may not only affect the composition on that line and subsequent lines in the paragraph, but can also affect line breaks above your change! By changing to the Single-Line Composer, you can avoid these problems. Consider creating a paragraph style for body copy which turns on the Single-Line Composer, just for this situation.

The When: Frequency of Hyphenation

When do you increase or decrease hyphenation? The most challenging of the four steps of hyphenation—how, what, when and where—is clearly the when, controlling the frequency. While you're likely to stick with one hyphenation method (the Paragraph Composer) and keep your policy settings stable (see "The Where" below), setting how often hyphenation is needed is a moving target. That's because the most significant factor when hyphenating is the column width, which is in turn affected by the page size, side margins, and gutters. If you're not using columns to structure your layout, substitute "frame width" for "column width" and the principles are just as relevant.

As an example, look at two common page grids: two- and three-column setups for a standard US Letter, portrait orientation (Figure 3). When type is justified to the wider width of the

Hand-Ragging Type

Sometimes, you can improve the look of your type by manually creating new line breaks in a paragraph. For words that are not in the dictionary, you can insert a discretionary hyphen within a word to allow it to hyphenate. With an insertion point in the word, go to Type > Insert Special Character > Discretionary Hyphen (or type Command/Ctrl-Shift-hyphen). Or you might want to force a word or two down to the next line by removing the hyphen (forcing InDesign not to hyphenate the word). In that case, insert a discretionary hyphen immediately before the word, or select the word and choose No Break from the Control palette or Character palette flyout menu.

Many people use a soft return (Shift-Return or Shift-Enter) or even a hard return (without the Shift) but those methods can lead to mistakes. When the text gets edited on a previous line in the paragraph, that return character will still create a line break, but it might fall at the beginning of a line. The discretionary hyphen is smart. When editing makes the hyphen unnecessary, it just disappears.



Quark user panics over no "H&J" settings

Trouble Spot: I'm a newbie to InDesign but a very wise and crusty user of Quark. So imagine my utter astonishment to discover that there's no way to set up H&J settings in advance. I can see that InDesign has these kinds of things, they call them Presets, but none for the ol' H&J What a loss!

Solution: Well, yes, you're right, InDesign takes the direct manipulation approach instead of that "two-step' dance you have in Quark—setting up your byphenation and justification settings in one place and then applying them some where else. The problem with this approach is that because of that disconnect, many designers didn't set the two things of the disconnect many designers didn't use or understand Hêdjs. In InDesign, you highlight you type and apply equivalent settings using two commands and dialogs, Hyphenation and Justification, both accessed from the Control palette menu, paragraph view. Turn on

frequency. When you're trying to get more or fewer hyphens your answer for flush left type is the mystery Hyphenation slider bar. Go to the Control palette menu, paragraph view or the Paragraph palette menu, and select Hyphenation. A the top of the dialog, be sure that the Hyphenate checkbor is on. However, an easier place to check that is on the paragraph view of the Control palette (toggle hyphenation off and on: Cmd-Option-Shift-H or Ctrl-Att-Shift-H) Below that are the five fields with the hyphenation "rules. Please see the sidebar with my recommendations.

But just below those settings is the control for hyphenation frequency, the slider bar whose end points are Better Spacing and Fewer Hyphens. For flush-left type, you can read "Fewer Hyphens" to mean a looser rag, more variation between the shortest and longest lines in a paragraph. Read "Better Spacing" to mean a tighter rag with more hyphens to make that happen. At this point, based on your column grid your font and your point size, the setting that works best is something you'll want to experiment with I recommend that you run tests with an entire page of copy, trying out various

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Not getting enough hyphenation for flush left

hyphenation in my text. I usually set the type flush left, but since I often work with type flush left, but since I often work with four or more columns, I need a tight ray for my body. That means more hyphens When I do a Select All with the Type tool I can sure see that there's a chasm over a the right edge of each column where there' no highlighting, no text. More hyphens please!

Solution: Controlling hyphenation is a puzzle to most people who use a layout program, not just InDesign. It's easy to assume that you control it with the hyphenation 'rules'—such as the minimum number of letters in a word that can be run tests with an entire page of copy, tryin out various settings on that slider, printin out each one, labeling each prof and the comparing them. Hyphenation is or type attribute where you need to see it i print before you can make a fair appraise. Well, point size is another. We make up too large because our work environmen are visually noisy—menus, palettes galor scroll bars, toolbox and what not.

Hyphen Zone and Adobe Paragraph Co<u>mposer—</u> no compute!

Trouble Spot: The hyphen zone i Quark and PageMaker has a major role i controlling the frequency of hyphenatio for flush left type. Not in InDesign. I the pre-InDesign world, the hyphen zone to the a true that type to contain a contain Figure 3: The line length is key to how much hyphenation is needed. Comparing here a two- and three-column setup, no hyphenation for either, the justified text set to a longer measure on the left is much more evenly spaced by default. With the narrower width, on the right, uneven gaps occur more frequently and require more attention.

two-column setup, the default word and letter spacing typically isn't bad, even with hyphenation off. The type engine has lots of words and word spaces to work with while justifying. Simply turning on hyphenation might be all you need. But the same justified text, placed in three columns, cries for more, even with hyphenation on. With fewer words on a line, there's less flexibility in spacing, yet the type engine still must justify. Rivers of white space are sure to show up, and readability drops.

When type is set flush-left, the column width is important for different reasons, having to do with the rag. If you were to connect the dots from one line ending to the next, what would the rag look like? Without hyphenation, all lines break only at word endings. That gives you big swings between the shortest and longest lines, sometimes referred to as a "loose" or "hard" rag.

With hyphenated text, however, it's a more subtle look. This sawtooth rag is said to become "tighter" or "softer," with a more uniform line length.

When you left-justify a two-column layout, a loose rag with little to no hyphenation may be just fine because there's a long line length to balance all the variance. The more generous rag may even offer a benefit of opening up that wide text block, making it more approachable. But when text is in three columns without hyphens, that loose rag may mean poor readability, with an insufficient number of words per line. There's a common rule of thumb—around 40 characters or 8 words per line is optimum, regardless of your line length. When you increase hyphenation for flush-left text set to a shorter measure, you'll get a tighter rag, and more words per line. With a longer measure, more fluctuation is fine. In either case, flush-left or justified, you'll want to

Hyphenation Cheat Sheet

Alignment	2-column (wider measure)	3-column (narrower measure)
Flush-left	Minimal hyphenation needed. Looser rag.	Increase hyphenation. Tighter rag, better word fit.
Justified	Minimal hyphenation needed. Typographic color is more even by default.	Increase hyphenation. Better typographic color.



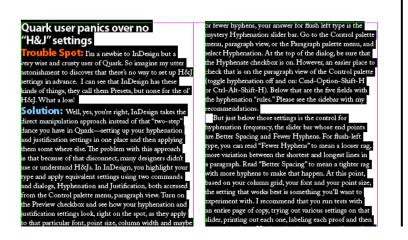




Figure 4: Again, you can see the same two and three columns of text, but now it's set flush-left, hyphenation still off. Here the rag in the two-column text is very loose, with big swings from shortest to longest lines. With a long line length, the looser rag is fine. But the same text set in three columns, with no hyphenation, looks pretty bad—the series of many short lines creates an unattractive profile.

increase hyphenation when the column width is narrower.

For a visual of these differences, see Figure 4. The "Hyphenation Cheat Sheet" table on the previous page sums up best practices.

Now that you understand what's needed, let's look at InDesign's tools to do it!

InDesign's Frequency Controls. Controlling the frequency of hyphenation should normally be the domain of the designer or possibly the production artist—typically not the editor. This is where your expertise comes into play to ensure that you maintain good readability. You'll probably need both the Hyphenation and Justification dialogs to control how often text is hyphenated. For flush left type, the Hyphenation dialog is all you'll need. However, for justified, the frequency of hyphenation is directly affected by controls in

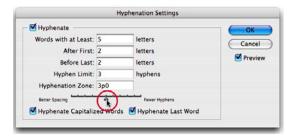
the Justification dialog as well. Reminder, you can find the Hyphenation and Justification commands in the Control palette menu, paragraph view.

Before you select either command, change your view to Fit Page in Window or Fit Spread in Window (Cmd-0 or Cmd-Option-0; or Ctrl-0 or Ctrl-Alt-0) to see the effects of your settings across a broader area.

Start with the Hyphenation dialog after selecting some flush-left text. If you missed the checkbox on the Control palette to turn on hyphenation, the Hyphenate checkbox in this dialog box offers another opportunity. Below the checkbox are numerous settings that may at first appear to affect frequency, but in fact, they are policies that control where hyphens are inserted. I'll come back to them shortly.

First, turn on the Preview checkbox so you can immediately see how your new settings play out

Figure 5: The "mystery meat" slider bar is actually straightforward for flush-left text. Think of "Better Spacing" as simply meaning "More Hyphens." When it comes to justified text, however, "Better Spacing" takes a serious nod from the settings in the Justification dialog.



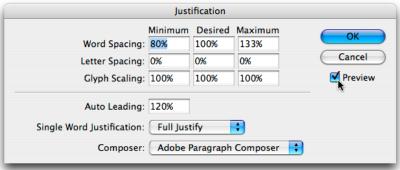


on the page. Take a look at what I call the "mystery meat" slider bar: Better Spacing–Fewer Hyphens, with eleven notches to choose from (Figure 5). When you drag the slider to the right, toward Fewer Hyphens, your flush-left type will have a looser, more ragged-right edge. When you drag it to Better Spacing, you get more hyphens and a tighter, more controlled rag. For flush-left type, think of the slider's endpoints as "More Hyphens—Fewer Hyphens." Easy enough, no mystery yet!

Click OK. Then select some paragraphs of justified text and return to the Hyphenation dialog. Drag the slider toward Better Spacing. You'll see a change, but what exactly is happening to your text? Here's the mystery. While Better Spacing can certainly mean adding hyphens, it can also affect much more—including word and letter spacing, as well as something called Glyph Scaling. To understand how these other attributes figure into the mix, you'll have to close the Hyphenation dialog box and choose Justification from the Control palette or Paragraph palette menu.

In the upper half of the Justification dialog box is a grid for controlling Word and Letter Spacing, as well as Glyph Scaling in justified text. For each function, there is a possible range from a Minimum to Maximum setting, and a Desired setting with a value that must fall between the two outside values (Figure 6). The secret about this array is that the settings in the Justification dialog are the levers to control frequency of hyphenation for justified text. Yet there's nothing in the dialog to suggest that relationship!





Take a closer look.

As you've seen, InDesign typically expands word spaces in some places and reduces it in others when justifying lines. The program's defaults in this grid give the composition engine permission to compress a word space to 80% of a normal space and enlarge it by one-third, 133%, to justify. When the engine follows these guidelines but still can't justify, it tries to kick in Letter Spacing. However, that's a no-go by default, with 0% for all three Letter Spacing settings. InDesign could try to throw in some Glyph Scaling to justify. The letterforms themselves can be scaled horizontally, ranging from a condensed letterform, under 100% for Minimum, to an expanded letterform, over 100% for Maximum. But with all settings the same, 100%, Glyph Scaling is also not allowed by default.

So what is the poor type engine to do? It still needs to justify, so it resorts to hyphenation. The hyphenation engine is like a high-flying fat cat who doesn't want to work and won't, unless forced. If the engine can justify without resorting to hyphenating, it will. Translation: If your ranges in this grid are generous enough,

Figure 6: The Justification dialog may look a bit daunting, but it's a powerful tool to increase or decrease hyphenation for justified text. Narrowing the ranges from Minimum to Maximum increases the hyphenation frequency.

Tip: Tighten Up!

The Justification dialog box's Desired setting affects flush-left text for all three functions. If you have a funky font where the body copy letter spacing is loose, the Desired field is an excellent place to tighten it up.







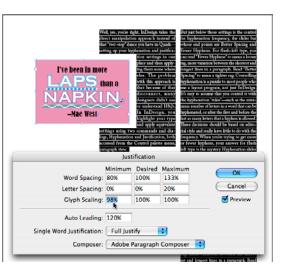


Figure 7: Word spacing for justified text can get really bad when line lengths are shortened, especially common with text wrapping. Look at the text just opposite the graphic on the far left. Notice the large word space gaps that occur when the default settings are unchanged in the Justification dialog. In the second and third examples here, the gaps are evened out by adding first letter spacing (20% Maximum) then Glyph Scaling (95% Minimum).

InDesign may justify the text without a single hyphen and instead, manipulate word spacing, letter spacing, and glyph scaling to get the job done. Hyphenation is almost the last resort.

There is one thing more that InDesign will do if hyphenating doesn't get the job done. It expands and/or contracts word spacing *beyond* your ranges. Ditto for letter spacing and glyph scaling if you allow for any variance in those ranges. The specific algorithms that Adobe uses to manage all this is dazzling, I'm sure. But this is as far into the mystery as you and I can easily go.

Setting Recommendations. Making justified text look great can be a challenge. Just remember that when you have a wider column or frame width, chances are you'll be able to even out your letter and word spacing by dragging the Hyphenation slider bar a notch or two toward Better Spacing.

If your justified text is set to a shorter measure and you see more exaggerated unevenness with light and dark patches, start by dragging the Hyphenation slider farther to the left, toward Better Spacing. But if you're still getting gaps and want to kick in more hyphens, switch to the Justification dialog and decrease the Word Spacing ranges by raising the Minimum value and decreasing the Maximum value.

I believe you can achieve a more even typographic color by allowing some amount of letter spacing to occur. The ideal letter spacing varies by person, of course. I may set my Maximum as high as 15 to 20%. Other designers are much more conservative. Conversely, I don't like to use letterspacing's negative minimum value to tighten body copy. Others see no problem with a small negative percentage.

With Glyph Scaling, you're changing the proportions of the letterforms. That's controversial.

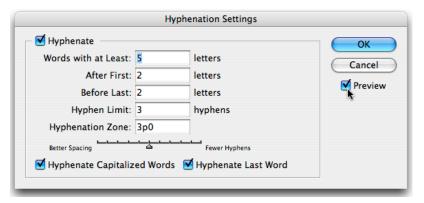
While type purists shun this feature, other people find it helpful in very small doses—that is, a range from 98% and 10 2%. (Figure 7).

The Where: Rules or policies

Once the Composer and your frequency settings have determined that hyphenation is needed for a paragraph or a line of text, someone must decide where hyphens should be inserted. This is one area where editorial policy may govern and the designer simply implements. Begin by going to the Hyphenation dialog to set the policies or rules (Figure 8).

Below the Hyphenate checkbox are several text entry fields where you can control where text is hyphenated in both flush-left and justified text. Remember to turn on the Preview checkbox so you can see the immediate effects of your choices.

Here's a breakdown of Hyphenation policy settings and defaults and my recommendations:



- Words with at Least: 5 letters—A word with 5 letters can be hyphenated between two syllables, one with two letters, the other three, such as "re-ply or "com-ic." The question is, are you willing to accept a minimum of two or three letters at the end of a line before a hyphen? A more conservative choice here is 6 letters minimum.
- After first: 2 letters—If you stick with the default five-letter word, you can still have three letters before the hyphen, but then the following line will start with only two letters.
- Before last: 2 letters—If you choose a minimum of 6 letters in a word, then you can have 3 letters before and after the line break. Nice way to go.
- Hyphen limit: 0 hyphens—How many consecutive lines of hyphenated text do you want to allow? Most often, the answer is two. When you leave the default of zero, you're letting InDesign have an unlimited number of lines end in hyphens. To avoid this, enter a 1 or 2.
- Hyphenation Zone—By default the Hyphen Zone is no longer relevant, though historically it has been the key to hyphenating flush-left text. I'd set it at 0p or 0".
- Hyphenate Capitalized Words and Hyphenate Last Word—Many editors have strong feelings about these last two policy options. With the former option checked by default, your company name and the names of products and services will be hyphenated. With the latter, sticking with the default option on means

Control the Hyphenation Dictionary

In a multisyllabic word, you sometimes want to know between which two syllables InDesign's dictionary prefers to hyphenate, and what other possible breakpoints the dictionary will consider.

To see these possible hyphenation points, go to Edit > Spelling > Dictionary. When you choose Dictionary..., a dialog box opens that lets you enter the word for which you'd like to check spelling or hyphenation points. If you select a word in your document before choosing the command, the word is automatically entered in the field.

When the word is in the field, click the Hyphenation button to reveal the breakpoints the dictionary knows about. One tilde (~) is the preferred location, two tildes indicates a less satisfactory alternate breakpoint, and three tildes indicates InDesign's last choice.

To customize the breakpoints, insert or remove tildes as you deem fit, following the rule of one tilde = preferred, more tildes = okay to break here if the preferred location doesn't work. Adding a tilde in front of the first character and removing all the other ones from the word tells InDesign "Don't hyphenate this word, ever."

When you're finished customizing the hyphenation breakpoints, click the Add button to save your hyphenation exception to the dictionary. When you click the Done button, InDesign runs through your document and recomposes it with your exceptions as necessary.—Anne-Marie Concepción, from an InDesignSecrets.com blog entry. Used with permission.



Figure 8: The good news

about the policies in the upper portion of the

Hyphenation dialog is that

settings when you have no

files open, those numbers

will be in effect for all new

you usually don't have

If you customize your

InDesign files.

to alter them very often.

may mean "short lines" (small bits of text for the last line of a paragraph). This is an industry no-no; unless your arm is twisted or there is a pressing need, turn off this option.

There's one more place to go for hyphenation finessing, especially when names aren't capitalized and you don't want hyphenation ("creativepro. com," for example). For details, see "Control the Hyphenation Dictionary."

It's Really Simple

Although there's a lot of theory behind this article, it boils down to some simple advice:

- Strive for even typographic color, avoiding big gaps or cramped text in justified type.
- Body copy should usually be hyphenated, yet it's off by default for placed text. Turn it on.
- Rarely or never hyphenate headlines, subheads, and captions.
- Flush-left type that's set to a wide measure can go without hyphenation. Furthermore, the shorter the column width, the tighter the rag.
- The Adobe Paragraph Composer is the best hyphenation method since it assesses the needs of the entire paragraph before insert-

- ing hyphens to ensure that the worst spots are remedied. But when you hand-rag text, switch to the Single-Line Composer to avoid changes in the line breaks above the line you're working.
- Frequency: One size does not fit all. Consider your column or frame width. If it's fairly wide, such as with a two-column grid, turning on hyphenation may be all you need for justified text. For flush-left text, you might even leave it turned off. But for three-column layouts and shorter column widths, work with the slider bar in the Hyphenation dialog. For justified text, consider increasing hyphenation by narrowing the Word Spacing range between Minimum and Maximum values in the Justification dialog—and possibly adding small amounts of Letter Spacing and Glyph Scaling.
- Incorporate your H&J settings into your paragraph styles. Then good hyphenation happens automatically once you've applied styles.

Follow these H&J suggestions and your readers won't stumble over badly set type. Instead, they'll concentrate on the vital messages you're now successfully communicating.

Eda Warren is president of Desktop Publishing Services, Inc., in Chicago, providing graphic training and design services. She is an Adobe Certified Instructor, ACE-Certified on InDesign CS2. Warren has taught graphic design nationally and internationally for 15 years. She will soon be recording an extensive digital video training on InDesign CS3 for Studio eWorks, provider to Mac and Windows Academy, as well as their own channels.



