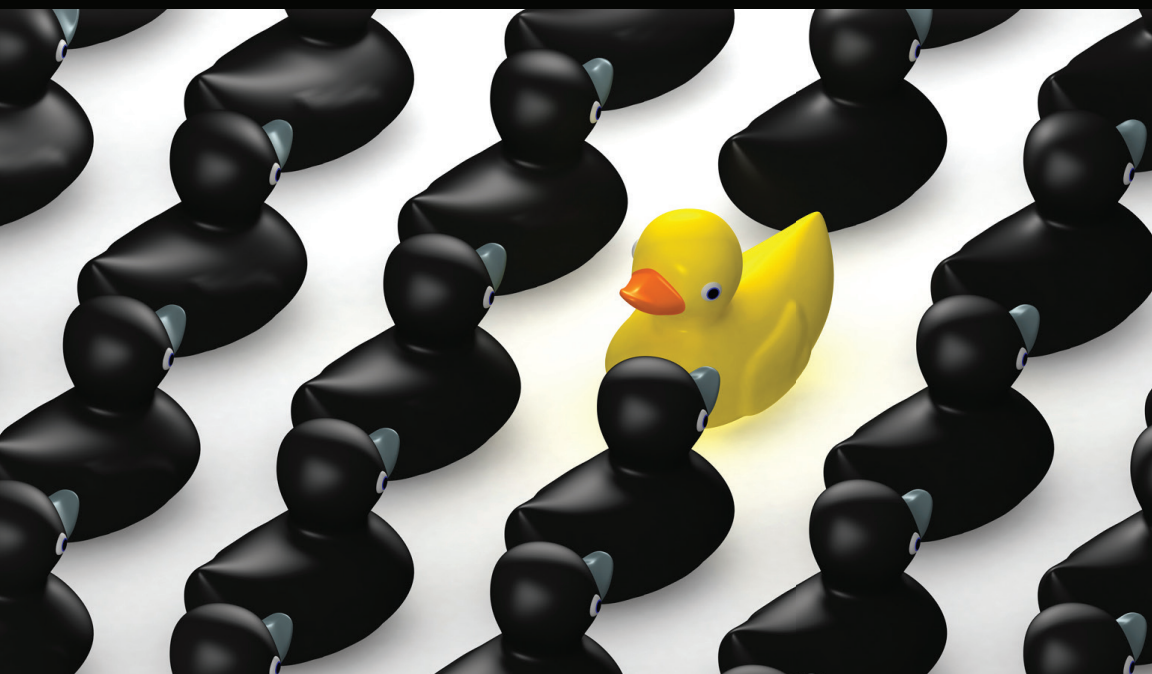


# The accidental

# Instructional Designer

Learning Design for the Digital Age



Cammy Bean

© 2014 American Society for Training & Development (ASTD)  
All rights reserved. Printed in the United States of America.

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, please go to [www.copyright.com](http://www.copyright.com), or contact Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923 (telephone: 978.750.8400; fax: 978.646.8600).

**ASTD Press** is an internationally renowned source of insightful and practical information on workplace learning, training, and professional development.

ASTD Press  
1640 King Street Box 1443  
Alexandria, VA 22313-1443 USA

Ordering information for print edition: Books published by ASTD Press can be purchased by visiting ASTD's website at [store.astd.org](http://store.astd.org) or by calling 800.628.2783 or 703.683.8100.

Library of Congress Control Number (print edition only): 2014934634  
ISBN-10: 1-56286-914-0  
ISBN-13: 978-1-56286-914-4  
e-ISBN: 978-1-60728-407-9

**ASTD Press Editorial Staff:**

Director: Glenn Saltzman

Manager, ASTD Press: Ashley McDonald

Community of Practice Manager, Learning Technologies: Justin Brusino

Associate Editor: Melissa Jones

Editorial Assistant: Ashley Slade

Text and Cover Design: Lon Levy

# Contents

---

Acknowledgments .....	v
Introduction: Once Upon a Time .....	ix
<b>Part I</b> .....	1
Chapter 1. On Instructional Design and E-Learning Pie.....	3
Chapter 2. Why Design Matters.....	19
<b>Part II</b> .....	31
Chapter 3. Working With Subject Matter Experts .....	35
Chapter 4. What's Your Design Approach?.....	51
Chapter 5. Finding Your Hook.....	81
Chapter 6. Interactivity That Counts .....	95
Chapter 7. Writing Better E-Learning .....	119
Chapter 8. It's All in the Story .....	133
Chapter 9. Looking Good: On Visual Design.....	143
Chapter 10. Mixing It Up: New Blends and Marketing Strategies.....	151
Chapter 11. Secret Handshakes.....	173
<b>Part III</b> .....	179
Chapter 12. Taking It Forward .....	181
My Favorite Resources .....	185
Selected Bibliography .....	187
About the Author .....	193
Index.....	195

# chapter 1

## On Instructional Design and E-Learning Pie

---

In this chapter . . .

- What is instructional design?
  - How many ways can you spell ID?
  - What four areas do you need to understand in order to be a well-rounded e-learning professional? (Hint: there's pie involved!)
- 

As instructional designers, most of us have a hard time describing what we do to the rest of the world. Instructional designer is not a job title that resonates even mildly with most people. So how can we describe our work

more accurately? Looking at textbook definitions of instructional design may not help with your next cocktail party conversation about your work, but they may provide a starting point.

In a volume of essays that is lovingly referred to by those who actually went to school for ID as “The Big Green Book,” Charles Reigeluth, a professor in the instructional systems technology department at Indiana University, defined the discipline of instructional design as being “concerned primarily with prescribing *optimal* methods of instruction to bring about desired *changes* in student knowledge and skills” (Reigeluth, 1983, 4).

Reigeluth talks about the distinction between theories of instructional design, which focus on methods of instruction and what a teacher does, as opposed to theories of learning, which focus on the learning process itself. As someone involved with designing instruction, it makes sense to know more both about how people learn and what methods work to help them learn more effectively.

M. David Merrill is an instructional effectiveness consultant, professor emeritus at Utah State University, and noted academic in instructional design. He makes a distinction between *instructional science* and *instructional design*. In his view, instructional science is the discovery and testing of instructional strategies, whereas instructional design uses those instructional strategies to invent “instructional design procedures and tools that will promote student learning” (Merrill, Drake et al., 1996, 5-7).

This all sounds very well and good for academics, but once you mix technology into the equation and start talking about real people making a living as instructional designers, these definitions get somewhat lost.

In “In Search of the Secret Handshakes of ID,” a snappy article in *The Journal of Applied Instructional Design*, Ellen Wagner talks about the ongoing challenge with which those of us who work at the “intersection of learning and technology” have struggled. She notes that there’s a lot of fluidity

and overlap between terms like *instructional design*, *instructional technology*, and *educational technology*.

Wagner, a tenured professor of ID, says she

strove to make the linkages between theory and practice, process and product clear and easy to understand for my students and in my work products. I ensured that my students were exposed to the theoretical underpinnings of learning, cognition, and instruction. I made sure they understood that media selection was contingent upon the analysis of the learner, the learning, and the conditions of learning. I considered definitions as noted in the previous paragraphs as robust, defensible, researchable aspects of the discipline. And then I left the academy. (Wagner, 2011)

What happens once you leave the academy of instructional design? You discover that the real world defines instructional design in a myriad of ways.

In practice, *instructional designer* is an umbrella term that covers a whole slew of people and jobs. Chances are, if you walked into a room filled with people who call themselves instructional designers, they would all have a slightly different definition of what they do and how they do it. One designer might say he builds courses using Articulate Storyline, while another says she does needs analysis and maps content to instructional strategies. A third might say she lays out content on a page, and another says he's focused on creating lesson plans for live classrooms.

In 2010, I had the privilege to present at an e-learning conference with Ellen Wagner and Koreen Olbrish Pagano. We called our session "New Skills for Instructional Designers," and as part of the prep work we looked at what the ID schools say they teach versus what companies actually want to hire.

The results were eye-opening.

The school descriptions included lofty terms like “learning,” “theory,” and “assessment.” Businesses trying to hire instructional designers, on the other hand, were asking for a large variety of job skills all lumped under the ID category. The following is a list I recently pulled from actual job listings for instructional designers. The job descriptions included things like:

- needs analysis
- task assessment
- writing learning objectives
- project management
- supplier management
- desktop publishing
- graphic design
- specific knowledge of specific authoring tools including Articulate Presenter, Captivate, and Lectora
- PowerPoint
- conduct live and recorded webinars
- support the training database
- knows ADDIE process
- experience working with SMEs
- experience creating ILT, facilitator’s guide, or student guides.

The story these job listings tell reinforces at least two things for me:

1. There is a disconnect between what a lot of ID programs teach their students and what industry needs. I don’t mean to disrespect all ID programs in a wholesale manner. In fact, I know of quite a few that are well-grounded in practical application and seem to produce graduates who can produce the type and quality of work product that Corporate America is looking for.

2. There really are many, many shades of instructional design.

## A Matter of Degrees

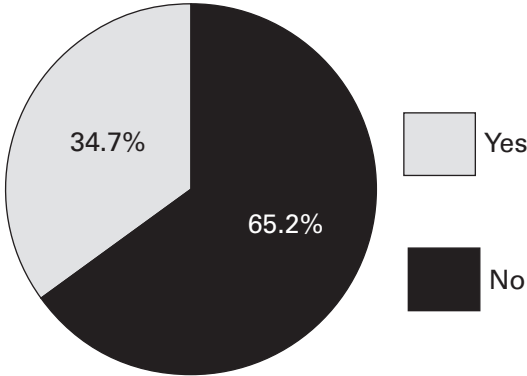
A fun conversation that I like to get into with academic types who teach instructional design, or have degrees in instructional design, is the age old debate of “degree” or “no degree.” When I find myself debating with those who say, “You need a degree in instructional design in order to do it right,” I don’t completely disagree with them. There is a lot of value in getting a degree in ID or educational technology—you learn core concepts and theories and (hopefully) practical application.

Deciding to go back to school in instructional design is a personal choice and a path you may choose to go down for all the right reasons. A degree or certificate may be just the thing if you’re looking to break into this field or want to take your skills to the next level. It might give you the structure and foundation that you need. At the *advanced* stage of my career, I personally do not see a need to get a degree in ID. If I had the time and the money, I might look into something like cognitive science. But I’m completely cool with where I’m at, mostly because I have made a concerted effort to learn more on my own. But I don’t think it’s realistic to demand or expect that everyone who does what we do has a degree and I don’t think it will ever happen.

What’s the reality out in the field? I’ve been running an informal survey on my blog for the last five or so years. I asked, “If you work as an instructional designer, do you have a degree in instructional design?”



Figure 1.1. Do you have an undergraduate or advanced degree in instructional design?



As of February 15, 2014, 65 percent of more than 650 respondents report that they do not have an advanced degree in instructional design. This has held strong for a couple years, so I'm willing to say that it's a good representation of what's actually happening. And the degrees that people do have were interesting, too: marine biology, literature, political science, English, chemistry, anthropology, French, geoscience, and home science. It's really quite a list. When I asked, "If you do not have a degree in instructional design, have you ever been denied work because of that lack?" The overwhelming response was "no" (83 percent).

So where do we start from and what do those of us who end up doing this work aspire to be? A couple of years ago I ran another informal survey asking practicing instructional designers what they wanted to be when they grew up. The answers were both enlightening and entertaining:



- Work with 3D immersive role playing tools like Second Life.
- Use web 2.0 technologies to design collaborative, just-in-time training experiences.
- Look at organizations' structures and define strategy.
- Craft distance learning events for college credit that pull together elements of both asynchronous and synchronous learning experiences.
- Create online learning experiences for use in K-12 classrooms.
- Manage online learning communities and curate content.

In a 2009 blog post, “The Various Roles of Instructional Design,” Jonathan Atleson broke ID down into the specific shades and gave them names, including:

- instructional designer
- instructional systems designer
- instructional (multimedia) developer
- instructional technologist
- instructional systems developer
- instructional systems analyst
- trainer/training specialist
- e-learning/multimedia project manager.

I'd add a few instructional design-related job titles I've noticed in the last few years (as well as some I've been called):

- learning designer
- interactive designer
- script writer
- e-learning developer.

That's quite a list with quite a few different roles and some rather varied skill sets.

Is it a problem that everyone seems to have their own definition of instructional design? Or that there are numerous shades of ID? What do you think?

## The E-Learning Pie

Why do so many different skills get lumped under one basic job title? It really speaks to the complexity of the discipline that is online learning in the corporate world. To dive more deeply into this, let's talk about pie. E-learning pie, that is.

While preparing for our "New Skills for Instructional Designers" session, Ellen Wagner turned me on to her schema for the e-learning profession. She said that well-rounded, e-learning professionals need to be versant in some very different areas if they're going to be successful in this business. There are four slices in a big pie, with each piece representing a critical part of the profession: learning, creativity, technology, and business.

### 1. Learning

The first piece is all about learning and pedagogy/andragogy: how we learn and how we assess whether or not people have learned. It's adult learning theory, instructional design, learning objectives, and behavioral and performance change. These are the teachers, instructional designers, and people who get very excited about assessments. They think about how to help people learn better and want to understand how humans think, act, and behave.

## 2. Creativity

Next is the creative slice. These are the writers, graphic artists, video producers, film directors, and game designers (although game designers could also fit into the learning section. Yes, there's overlap). These people make beautiful e-learning material that pulls you in. They tell compelling stories that make people want to stick around and learn.

The truth is, without creative talent in e-learning, we might just end up with lists of really boring learning objectives.

## 3. Technology

The third piece is technology. Electronic media is what put the “e” in e-learning after all. Where would we be without the programmers, developers, builders, authoring tool users, LMS creators, and people who know about SCORM and data analytics? Technology pulls it all together, and without it, well, it's not technology-based learning, is it?

Not all designers are technicians, but you need to know what you're working with and how far you can take it. You at least need to speak the language, understand the terms, and know when you're in over your head and need to contact an expert.

## 4. Business

Whether you're in academia or on the corporate side of the industry, there's always the business piece of the pie to consider. This is where you need to understand business needs, strategic goals and vision, consultancy, ROI and measurement, project management, and client management. Understanding the business piece ensures that you're delivering a commercially sound project that meets your business needs, is on time, and on budget.

## The Whole Pie

Ever felt a little schizophrenic as an instructional designer? Now you have a reason. These four slices of pie represent different skill sets and interests. However, each one is integral to a successful e-learning initiative; failure to focus on one of these pieces may cause your program to fall flat.

---

## E-Learning Pie: Know Your Strengths!

### Learning, Pedagogy, and Assessment

- Adult learning theory
- Behavior change
- Instructional strategies
- Assessment
- Curriculum design
- Learning objectives

### Creativity

- Facilitation and performance (for live instruction)
- Writing (copy writing, script writing)
- Video production
- Audio
- Visual design
- User experience design
- Game design
- Animation
- Storytelling

## Technology

- Authoring tools
- Programming (.net, Java, PHP, CSS, HTML)
- SCORM/AICC/xAPI
- Learning management systems
- Quality assurance and testing
- Tracking and reporting

## Business

- Business needs assessment
  - Conducting focus groups
  - Data analysis
  - ROI
  - Consulting skills
  - Project management
- 

# The E-Learning Pie in Practice

I feel pretty lucky that my e-learning career has always been on the supplier side of the business, working for companies that design and develop e-learning for other companies. Because we're the experts, we have dedicated people who focus on what they're uniquely good at: graphic artists who design beautiful layouts; instructional designers who do needs analysis and define learning objectives; salespeople and account managers who map it all back to the organization's business needs; writers who pull off the perfect scripts; project managers who make it all run like clockwork—on time and on budget; developers who know the tools, speak the SCORM,

and take care of the things that make me want to stick my fingers in my ears and sing “la la la.”

Those of you who work as a one-person e-learning shop, either on your own as a freelancer or within an organization, have a bit of a challenge—somehow you need to represent all of these pie slices. If you can do that all really well, you’re some kind of superhero. If not, then you may be falling flat in some way or you’re getting help from outside your organization to fill in your gaps.

The truth is, a lot of e-learning projects just represent a few parts of the pie. Have you ever seen an e-learning program that’s full of learning and technology, but nothing else? It’s instructionally sound and filled with learning objectives that begin with all the proper verbs. It makes great use of technology that brilliantly passes seat time and final test results back to the learning management system. But, man-o-man, is it boring. And so the initiative fails because it’s missing the creative touch and a clear connection back to the business objectives.

Some projects might just showcase the creative and technology pieces of the pie and try to pass it off as e-learning—but then it’s something else entirely. Some might call it pure entertainment.

The most successful e-learning initiatives pull all these pieces together: they have a clear vision of what the audience needs to learn and how to best achieve that outcome; a creative design that looks enticing, creates interest, and sustains attention; the right technology that stands up to the delivery needs; and a solid connection back to the overall goals and objectives of the organization.

But that kind of project is typically the work of a well-balanced team. Because, frankly, that’s a lot of hats for one person to wear.



## T-Shaped Skills

So is your job to get deep expertise in all pieces of the e-learning pie? Maybe. But let's take a look at another model, in the shape of the letter T.

The e-learning field is a knowledge-based profession that really fits a T-shaped skills model. We need broad skills and understanding (the top of the T), with potentially one area of deep expertise (the vertical bar of the T). The horizontal bar enables you to communicate and collaborate with experts across a wide range of disciplines, making you a versatile generalist with a well-rounded pointed of view. The deep vertical bar makes you a specialist.

Scott Abel, in a post on content strategy, "Content Strategists Must Become Engineers of Content-Driven Customer Experiences," writes of this specialist versus generalist theme:

It's also clear that while specialists exist in every field, you wouldn't expect a general practitioner (a medical doctor who is trained to provide primary healthcare to patients of either sex and any age) to say she doesn't know anything about how to treat the infection on your foot because she's not a podiatrist (doctor who specializes in foot care) or a dermatologist (doctor who specializes in skin care). Sure, she may need to refer you to one of these specialists should your problem be difficult to cure, or extremely unusual. But, because all physicians have a common understanding of how the body works, a general practitioner could be expected to have sufficient knowledge to talk to you intelligently about the infection, and offer immediate treatment (if warranted). Of course, if she found that her education and experience did not prepare her to help you overcome your medical challenge, as a professional, she would seek guidance from a specialist.

## Know Your Sweet Spot, Know Your Weakness

What is your favorite piece of pie? What is your sweet spot? What pulled you into this field? For me, it was writing and teaching. Although I didn't get an education degree, I apparently had an inclination to teach. I've also found that I have the ability to communicate ideas and processes to people in a way that makes sense.

My agnostic area has always been the technology side. I don't speak code, I don't understand variables, I cringe when someone wants to talk SCORM. I know enough to know when I need to pull in a specialist, and that's what really matters.

If you're happy with your part of the pie, focus on that craft and hone your skills. Become a specialist and make that your vertical, but be sure to keep your eye on the broad skills and all four pieces of the pie. However, if you have the bigger picture in mind, then take the time to learn what you need to about the other pieces. Just don't spread yourself too thin or you could get watered down. We can't be experts in everything and with technology changing so quickly, there's a lot to keep track of, like alternative reality games, virtual worlds, mobile technology, rapid e-learning, SCORM, xAPI, graphics, instructional design, authoring tools, social media, big data, 3D printing, augmented reality, and HTML5. It's enough to make your head spin. Mine sure does.

Make an effort to build a community and network to help you and round out your pie. Today it is so easy to connect with people and resources to learn from and share their expertise. You can use Twitter to find people who know more about the business of e-learning than you, hone your creative craft by reading blogs about writing or video production, read books about instructional design strategies, and talk to professors

who know the research about what makes adults pay attention. Go to technology-based learning conferences and find your people—hear firsthand what other organizations are doing and how they are creatively solving their problems.

Even if you are working as a one-person shop in your organization, you are not alone. In the next building, across town, and around the world, there are thousands of people figuring out how to deliver better learning solutions using technology. You are not alone and your problems are not unique. We are all here to help.