

**Improving
Library
Instruction by
Design**

2011 Library Tech Conference

HELLO

Issues

<http://z.umn.edu/improvingid>

Issues



UNIVERSITY OF MINNESOTA

LIBRARIES



information literacy librarian

**KATE
Peterson**



instructional designer

**PAUL
Zenke**

290

781.7 HAN

HANDEL, G.F.

22762 ✓

781-7 FRA

FRANCK, C.

We are interested in you.

Jamieson

6 DE 16

3 en

3474c

2.46 yd

Sims

Ms. Cook

74 Mountain
Ad. Spr.

Bowen

57150

lat 18/4 21-d

MAR 1957

290

781.7 HAN

**In one word,
describe your
instructional design
training in Library
school?**

lat 18/4 2/-d
1 MAR 1997

290

781.7 HAN

HANDEL, G.F.

What percentage of
your day-to-day work
would you say is
“instructional design”?

34/4c

2.46 yd

Bowen
57150

lat 18/4 2/-d

MAR 1957

OUTLINE

Our story

ID in the library

Types of projects

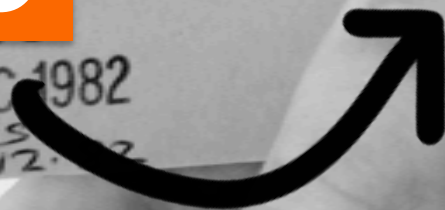
Lessons

+

Challenges

Recap

Q&A





Building Our Case



Long Road to Hiring

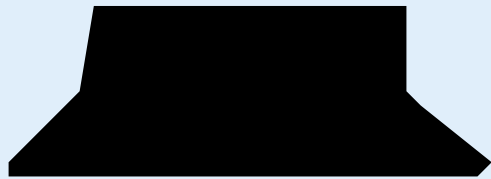


Process and Workflow






1923



2011



A hand is holding a library card. The card has a yellow label with handwritten text: "228670", "-6 DEC 1982", "+3WKS", and "29.12.82". A blue rectangular overlay with white text is positioned over the top half of the card. The background is a light blue gradient.

**Instructional designers
help support student
learning through the
effective use of
academic technology.**

228670
-6 DEC 1982
+3WKS
29.12.82

290

781.7 HAN

HANDEL, G.F.

22762 ✓

781-7 FRA

FRANCK C.

Process

574c
Jamieson

8 DE 16

3 ven

3474c

2.46 yd

3265

Sims

Ms. Cook

74 minutes
Ad. Sp.

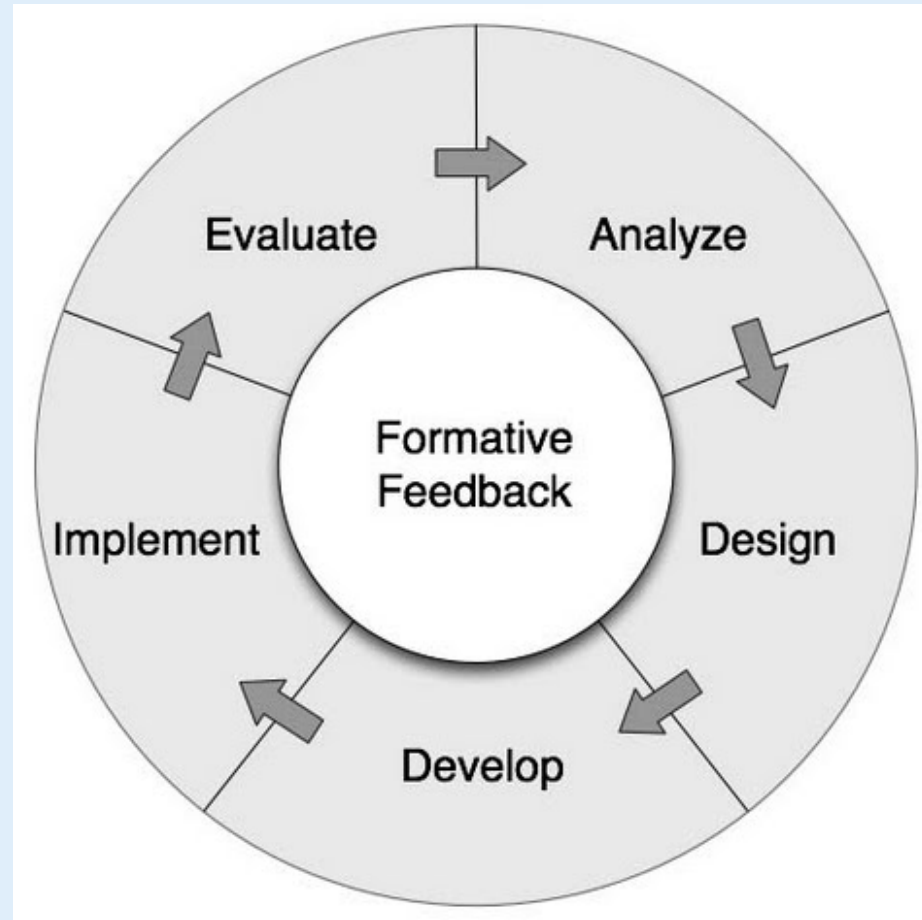
Bowen

57150

lat 18/4 21-d

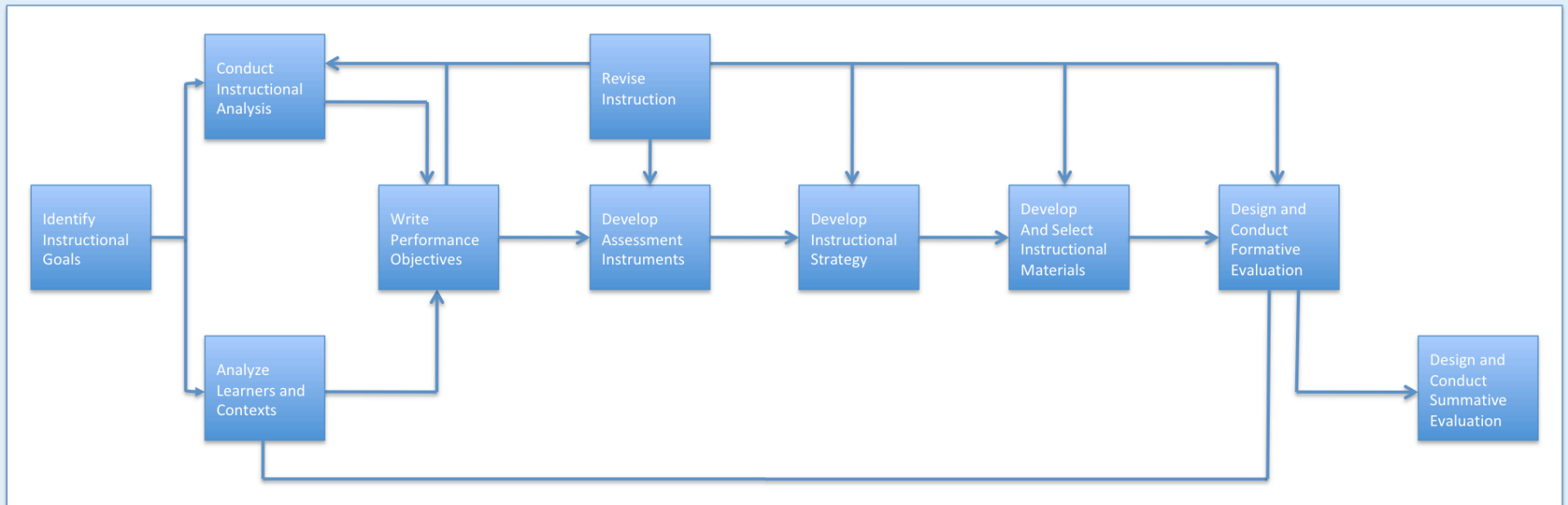
1 MAR 1957

MODELS



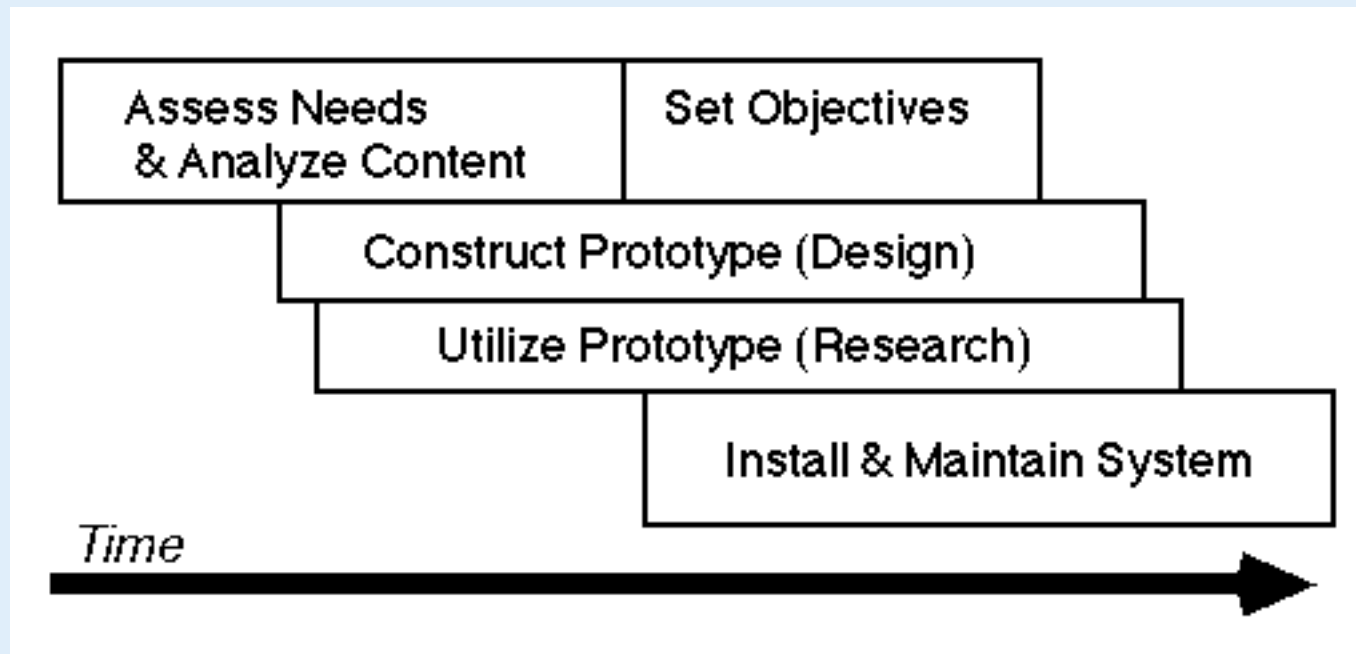
ADDIE

MODELS



DICK & CAREY

MODELS



RAPID PROTOTYPING

Common Elements

Who is the learner and what do they need?

Design Develop

Implement Assess

Castle
147359

Prelude and fugue from the
eighth harpsichord suite

2,5676

-6 III 1981

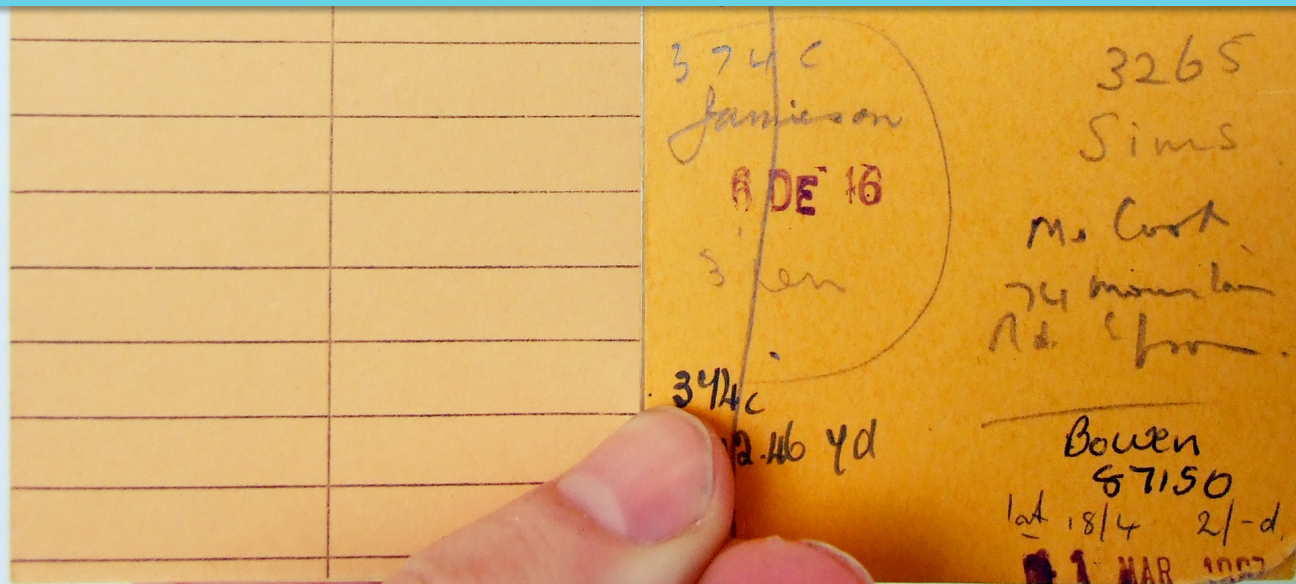
-6 DEC 1982
+3 WKS
29.12.82



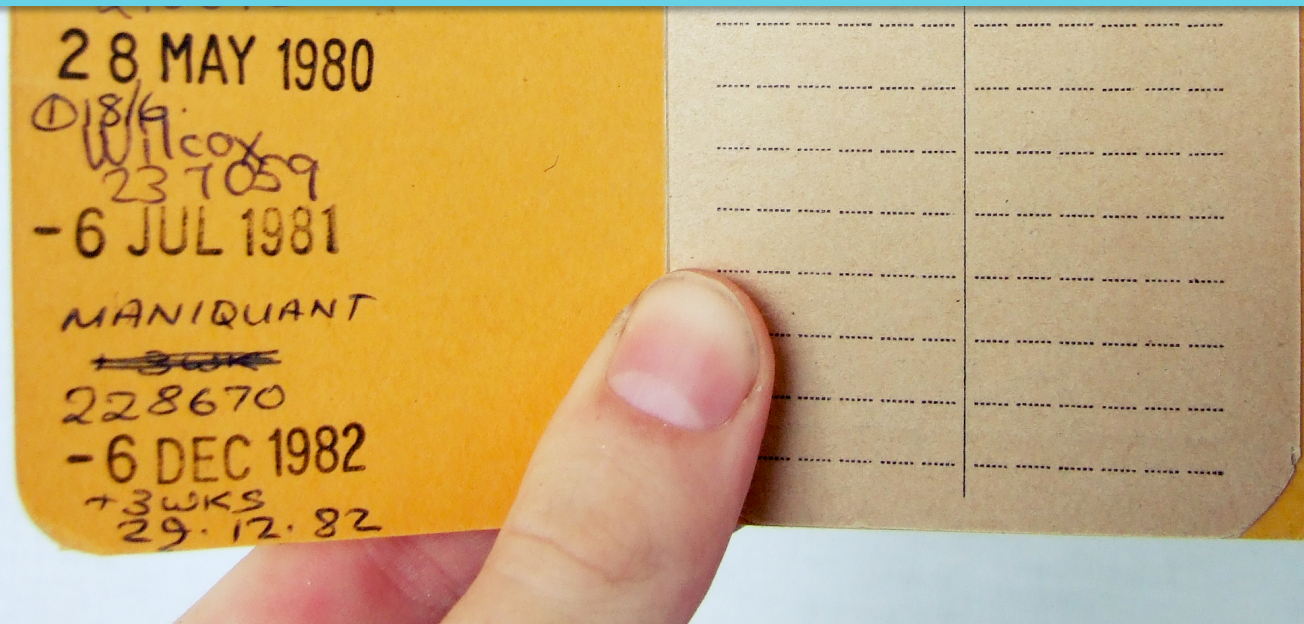
**useful things
for librarians
to know about
instructional
design**

Tom Kuhlmann

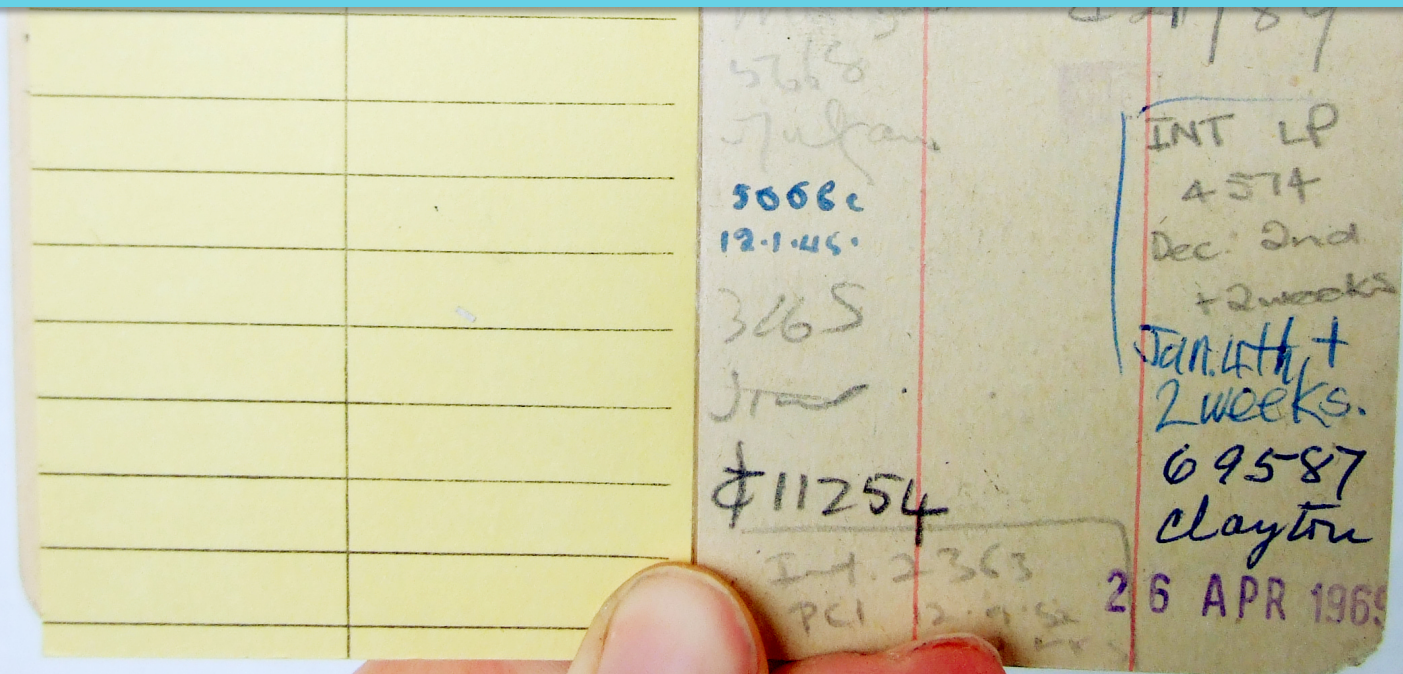
ID is more than just putting information in front of a learner.



ID has clear goals and gets learners focused on the right things.



ID provides context
and perspective.



**ID compresses the
learning process and
saves time.**



**ID engages learners
with clear and
meaningful content.**

26 AUG 1982

- 6 DEC 1982
+ 3 WKS
29. 12. 82.

ID helps increase the scale of delivery.

26 AUG 1983

228670

-6 DEC 1982

+ 3 WKS



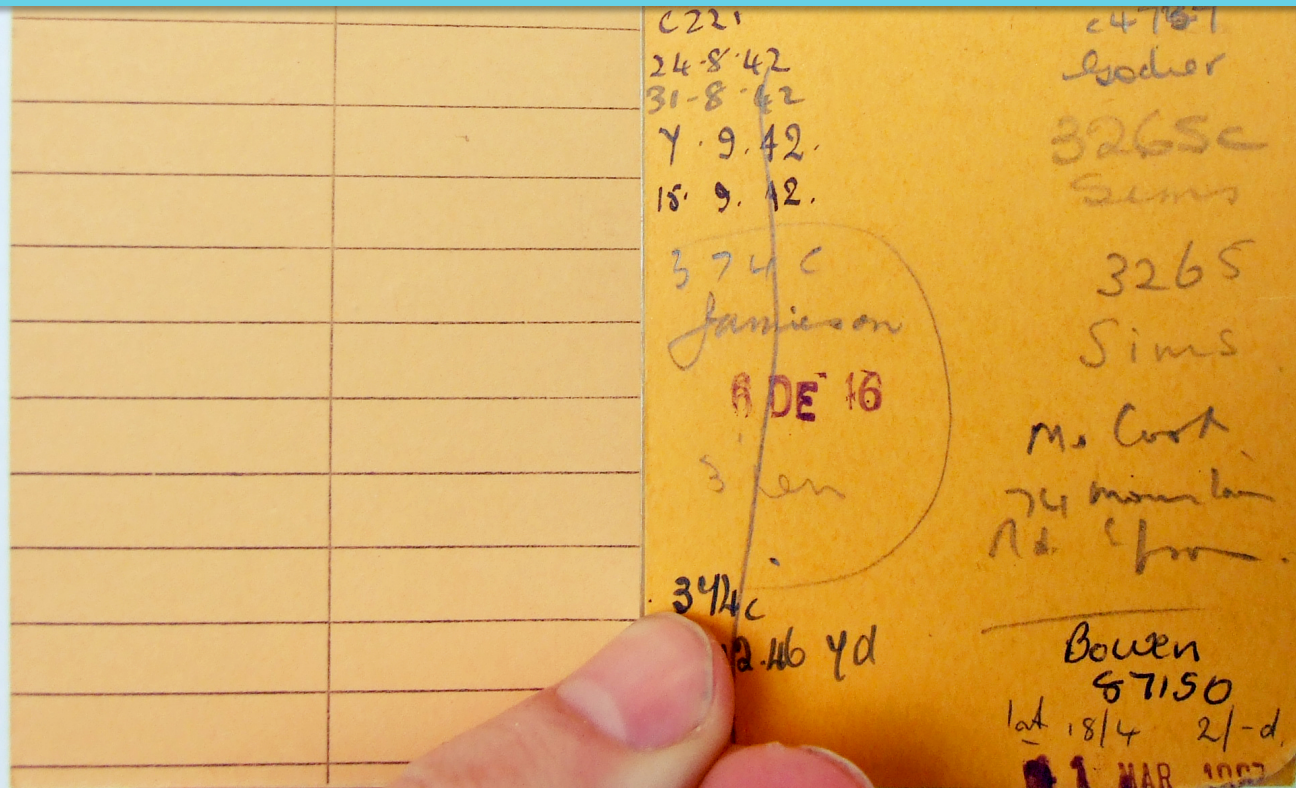
Types of Projects



Issues

Examples

1. TEACHING HOW TO USE A TOOL



1. TEACHING HOW TO USE A TOOL



1. TEACHING HOW TO USE A TOOL



z smith reynolds library

Wake Forest

Questions? Ask.

Toolkit

[Login](#) | [Toolbench](#) | [FAQ](#)

BROWSE THE TOOLKIT

addin advanced **articles** barnes **basic** beginner bibliography **books** boolean **catalog** circulation citation citations
courses database **databases** dvds ebook education ereserves eric evaluation fulltext google intermediate
introduction journals keyword kindle lcsh librarian limit microsoft noble nook offsite personalize plugin primarysources print
proquest psychology psycinfo reader religion renew reserves **search** searching smartboard sociology sony technology
thesaurus touch truncation webofscience websites word **zotero**

[Browse all tools](#)

THE UNIVERSITY

[WFU Home](#)
[Google Mail](#)
[Sakai](#)
[WakeStudent](#)
[WIN](#)

WHAT'S NEW

[Overview of the Nook Ereader](#)

This video gives a basic overview of the Barnes & Noble ebook reader. **Time: 2:16.**

[Overview of the Sony Touch Reader](#)








This video gives a basic overview of the features on the Sony Touch Reader. **Time: 2:37.**

[Overview of the Kindle Reader](#)

This video gives a basic overview of the Kindle Reader. **Time: 2:20.**

[Ebooks Readers Available From the Bridge](#)

WHAT'S POPULAR

-  [What to Do When Full Text Doesn't Work](#)
-  [Find the newest DVDs](#)
-  [Better Search Results with Boolean Searching](#)
-  [Getting Started with Web Evaluation](#)
-  [Deciding Which Full Text Options to Use](#)
-  [Quick Pick Databases](#)
-  [Renewing Books and DVDs Online](#)

2. HELP WITH A PROCESS

Intro to Library Research 1: Evaluating Sources

UMN

Exercise: Apply the Criteria to a Source

Your course:

Public Health 1002

Your paper topic:

Abuse of prescription drugs and ways to treat it

Assignment:

Apply the criteria (timeliness, perspective / intent, and authority) to the sources.

Your Source: →

SOURCE 1

Book

Title: *Overcoming Prescription Drug Addiction: A Guide to Coping and Understanding*, 3rd edition

Publication Date: 2008

Author: Rod Colvin

About the author: Rod Colvin holds a bachelor of arts degree from Washburn University, Topeka, Kansas, and a master of science degree in counseling psychology from Emporia State University, Emporia, Kansas. From 2003 to 2005, Colvin served on an advisory commission to the National Center for Addiction and Substance Abuse, Columbia University, New York.

Description: The author, whose brother died at age 35 from abusing painkillers and tranquilizers, relates



Question 1 of 6

Is timeliness important for this topic?

YES

NO

2. HELP WITH A PROCESS

NC STATE U

Anatomy of a Scholarly Article

Abstract

Since it first aired in 2000, CSI has become a popular program in the United States. In this paper, we include observations about the show's success in Miami. We are interested in the show's success in Miami, especially in terms of the gender how CSI uses the concept of authority. We also demonstrate how to go about using the results of...

Presented by [NCSU Libraries](#)

[Click here to re-display the directions.](#)

A Cognitive Model for the Representation and Acquisition of Verb Selectional Preferences

Afra Alishahi

Department of Computer Science
University of Toronto
afra@cs.toronto.edu

Suzanne Stevenson

Department of Computer Science
University of Toronto
suzanne@cs.toronto.edu

Abstract

We present a cognitive model of inducing verb selectional preferences from individual verb usages. The selectional preferences for each verb argument are represented as a probability distribution over the set of semantic properties that the argument can possess—a *semantic profile*. The semantic profiles yield verb-specific conceptualizations of the arguments associated with a syntactic position. The proposed model can learn appropriate verb profiles from a small set of noisy training data, and can use them in simulating human plausibility judgments and analyzing implicit object alternation.

over all the classes that can occur in that position. Resnik's model was proposed as a model of human learning of selectional preferences that made minimal representational assumptions; it showed how such preferences could be acquired from usage data and an existing conceptual hierarchy. However, his and later computational models (see Section 2) have properties that do not match with certain cognitive plausibility criteria for a child language acquisition model. All these models use the training data in "batch mode", and most of them use information theoretic measures that rely on total counts from a corpus. Therefore, it is not clear how the representation of selectional preferences could be updated incrementally in these models as the person receives more data. Moreover, the assumption that children have access to a full hierarchical representation of semantic classes may be too strict. We propose an alternative view in this paper which is more plausi-

Alternating verbs		Non-alternating verbs	
write	0.61	hang	0.56
sing	0.67	swear	0.71
drink	0.67	say	0.75
eat	0.74	catch	0.76
play	0.74	show	0.77
pour	0.76	make	0.78
watch	0.77	let	0.78
pack	0.78	open	0.81
steal	0.80	take	0.83
push	0.80	see	0.87
call	0.80	like	0.87
pull	0.80	get	0.87
explode	0.81	find	0.87
read	0.82	give	0.88
hear	0.87	bring	0.89
		want	0.89
		put	0.90
Mean:	0.76	Mean:	0.81

Figure 6: Similarity with the base profile for Alternating and Non-alternating verbs.

than verbs with stronger preferences. We use the cosine measure to estimate the similarity between two profiles p and q :

$$\text{cosine}(p, q) = \frac{p \times q}{|p| \times |q|} \quad (9)$$

The similarity values for the Alternating and Non-alternating verbs are shown in Figure 6. The larger values represent more similarity with the base profile, which means a weaker selectional preference. The means for the Alternating and Non-alternating verbs were respectively 0.76 and 0.81, which confirm the hypothesis that verbs participating in implicit object alternations select more strongly for the

profiles during the course of learning, and compare it with child data for different age groups, as we do with semantic roles (Alishahi and Stevenson, 2007). We have shown that the model can predict appropriate semantic profiles for a variety of verbs, and use these profiles to simulate human judgments of verb-argument plausibility, using a small and highly noisy set of training data. The model can also use the profiles to measure verb-argument compatibility, which was used in analyzing the implicit object alternation.

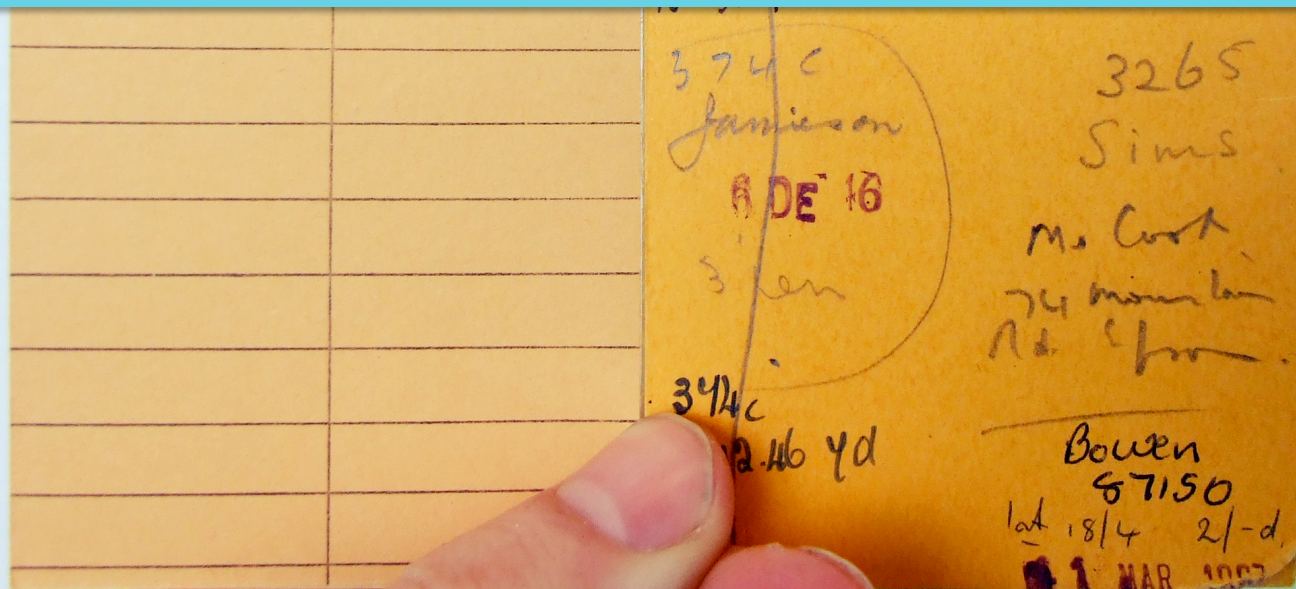
References

- Abney, S. and Light, M. (1999). *Hiding a semantic hierarchy in a Markov model*. In *Proc. of the ACL Workshop on Unsupervised Learning in Natural Language Processing*.
- Alishahi, A. and Stevenson, S. (2005). *A probabilistic model of early argument structure acquisition*. In *Proc. of the CogSci 2005*.
- Alishahi, A. and Stevenson, S. (2007). *A computational usage-based model for learning general properties of semantic roles*. In *Proc. of the EuroCogSci 2007*.
- Anderson, J. R. (1994). *The adaptive nature of human categorization*. *Psychological Review*, 98(3):409–429.
- Brookmann, C. and Lapata, M. (2003). *Evaluating and combining approaches to selectional preference acquisition*. In *Proc. of the EACL 2003*.
- Caramazza, M. and Johnson, M. (2000). *Explaining away ambiguity: Learning verb selectional preference with Bayesian networks*. In *Proc. of the COLING 2000*.
- Clark, S. and Weir, D. (2002). *Class-based probability estimation using a semantic hierarchy*. *Computational Linguistics*, 28(2):187–206.
- Collins, M. (1999). *Head-Driven Statistical Models for Natural Language Parsing*. PhD thesis, University of Pennsylvania.
- Holmes, V. M., Stone, L., and Capples, L. (1989). *Lexical expectations in parsing complement-verb sentences*. *Journal of Memory and Language*, 28:668–690.

1 Introduction

Verbs have preferences for the semantic properties

3. PROVIDE MORE CONTEXT (BACKSTORY)



3. PROVIDE MORE CONTEXT



UMN
Janet
Fransen

3. PROVIDE MORE CONTEXT

Which is more expensive?

You might be surprised at how the prices of journal subscriptions compare to the costs of other items. Roll your mouse over the picture of the item you think is more expensive in each pair.

VANDERBILT

A New Beetle or *Brain Research*?



*2004 Volkswagen GLS,
c. Volkswagen of America, Inc.*



*Reprinted from Brain Research,
Vol. 1026, Copyright 2004,
with permission from Elsevier*



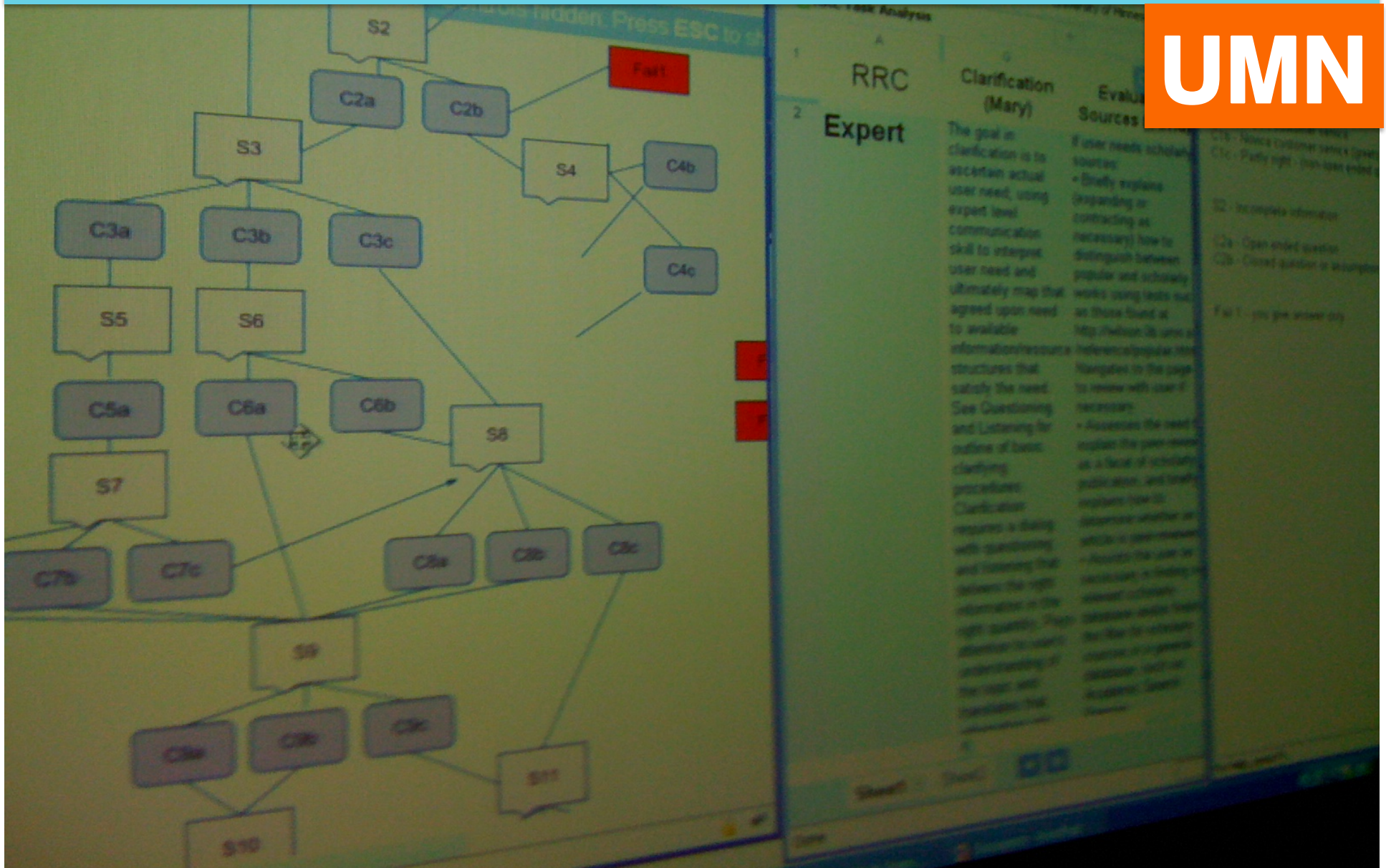
*Sony 50" XBR® Plasma
WEGA™ HDTV,
c. Sony Electronics*



*Reprinted from Surface Science,
Vol. 57, Copyright 2004,
with permission from Elsevier*

4. TRAIN STAFF

UMN



4. TRAIN STAFF



CARNEGIE MELLON

I'll Get It!

GV
1469.15
CMLA
2007

You are a student who must help his peers to identify a variety of research materials. Use your mouse to pick up their requests. Then use the catalog to look for helpful resources.

Do your best to help them quickly finish their research with the best tools for the job.

4. TRAIN STAFF



ELECTRONIC
DATABASE

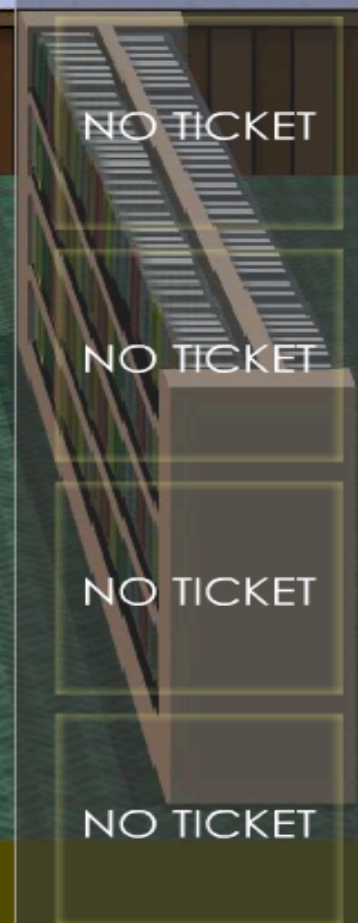
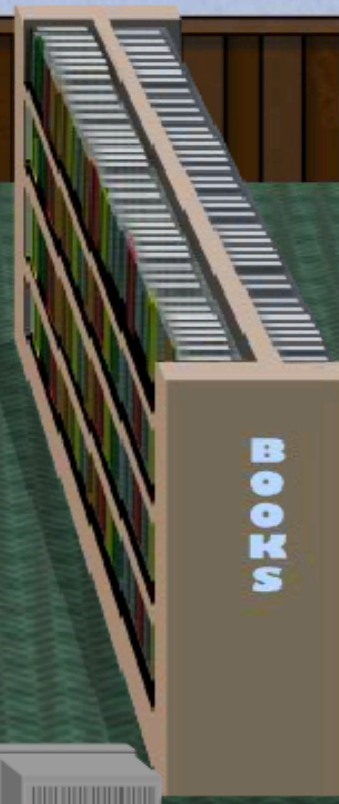
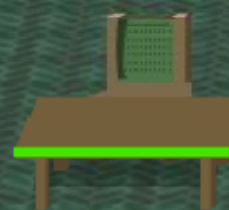


YOUR SCORE

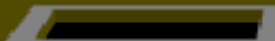
0

HIGH SCORE

0



BOOK RETURN



LIBRARY CATALOG



4. TRAIN STAFF



CARNEGIE MELLON

Within Range

GV
1469.15
CMLA.2
2007

Shelve books in correct order to learn how information is organized and categorized using the Library of Congress Classification System.

Use the mouse cursor to pick up titles and place them in their correct location by hovering over the other books on the shelf.

4. TRAIN STAFF

Library of Congress Classification Guide	
A	General Works and Encyclopedias
B	Philosophy - Religion
C	Auxiliary Sciences of History
D	History: General and Old World
E-F	History: The Americas
G	Geography, Anthropology, Folklore
H	Social Sciences (Statistics, Marketing, Finance, Sociology)
J	Political Science
K	Law
L	Education
M	Music
N	Fine Arts (Painting, Interior Design)
P	Language and Literature
Q	Science
R	Medicine
S	Agriculture
T	Technology
U	Military Science
V	Naval Science
Z	Bibliography and Library Science



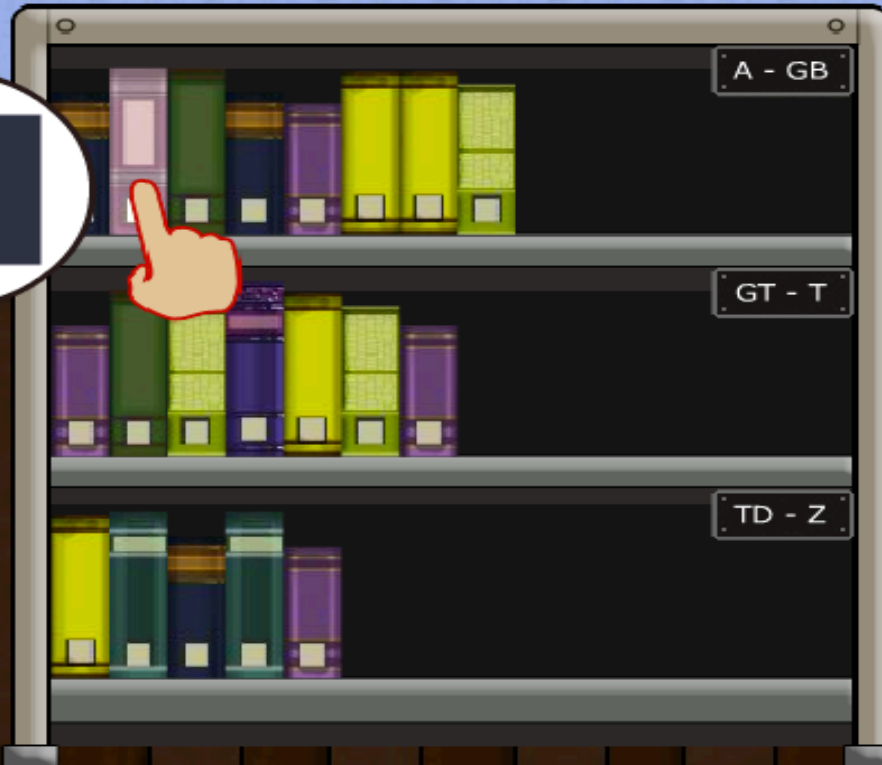
YOUR SCORE

0

HIGH SCORE

700

B
101.2
.B64



290

781.7 HAN

HANDEL, G.F.

22762 ✓

781-7 FRA

FRANCK, C.

Lessons

Jamieson

6 DE 16

3 en

342c

2.46 yd

Sims

Ms Cook

74 number
Ad. for

Bowen

57150

lat 18/4 21-d

MAR 1957

Recap

Our story

ID in the library

Types of projects

Lessons + Challenges

781.7 HAN

22462 ✓ 781-7 FRA
FRANCK, C.
Trois Chorals

c4787
Lieder
3265c
Songs

265
ims

Bowen
57150
lat 18/4 2/-d
1 MAR 1982

290 781.7 HAN
HANDEL, G.F.

22762 ✓ 781-7 FRA
FRANCK, C.

THANK YOU

Jameson
8 DE 16
3 en
3474c
2.46 yd
Sims
Ms Cook
74 number
Ad. for
Bowen
57150
lat 18/4 21-d
1 MAR 1957



UNIVERSITY OF MINNESOTA

LIBRARIES



**katep@
umn.edu**

**KATE
Peterson**



**pfzenke@
umn.edu**

**PAUL
Zenke**

References

1. Theme inspired by @jessedee "You Suck at PowerPoint" <http://www.slideshare.net/jessedee/you-suck-at-powerpoint>
2. Library cards, CC AT NC ND "Zine - Issue Jr." by Whitluxus
3. "Library Staff", UMedia Archive, <http://umedia.lib.umn.edu/node/65728/106514>
4. "Libraries Serials Division", UMedia Archive, <http://umedia.lib.umn.edu/node/65729/106516>
5. "Library (new) Minneapolis Campus. Walker Library", UMedia Archives, <http://umedia.lib.umn.edu/node/65429/105916>
6. "Gowan Minnesota One Room Schoolhouse 1923-1924", <http://www.panoramio.com/photo/23368071>
7. "Computer" CC AT The Noun Project
8. "Laptop" CC AT The Noun Project
9. "ADDIE Model" CC AT Wikipedia
10. "Dick and Carey Model" CC AT Wikipedia
11. "Rapid Prototyping", Tripp, S., & Bichelmeier, B. (1990). Rapid prototyping: An alternative instructional design strategy. Educational Technology Research & Development, 38(1), 31-44. Accessed at <http://it.coe.uga.edu/studio/seminars/rpmodel.html>
12. Kuhlmann, T. (2010). "What Everybody Ought to Know About Instructional Design". <http://www.articulate.com/rapid-elearning/what-everybody-ought-to-know-about-instructional-design/>
13. Wake Forrest "Toolkit", <http://zsr.wfu.edu/toolkit/>
14. University of Minnesota Libries, "Intro to Library Research", <http://www.lib.umn.edu/introtolibraryresearch>
15. North Carolina State University, "Anatomy of a Scholarly Number", <http://www.lib.ncsu.edu/tutorials/scholarly-articles/>
16. Vanderbilt Library, "Which is More Expensdive?", <http://www.library.vanderbilt.edu/jcosts/>
17. Carnegie Mellon Library Research Quest, <http://search.library.cmu.edu/client/default>