

INFORMATION DESIGN

ACADEMIC POSTER & PRESENTATION EDITION

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February 26, 2010

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

**Presentation
Design**

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

**Presentation
Design**

**WHAT
IS
GOOD
DESIGN?**

DESIGN PRINCIPLES

Simplicity

Effectiveness

Usefulness

Transition

Contrast

Harmony

Minimalism

Interestingness

Eye pleasing

...

Line

Shape

Direction

Texture

Type

Size

DESIGN PRINCIPLES



Balance



Rhythm



Proportion



Emphasis



Continuance

Unity

Closure



Similarity

Proximity

Alignment

DESIGN PRINCIPLES

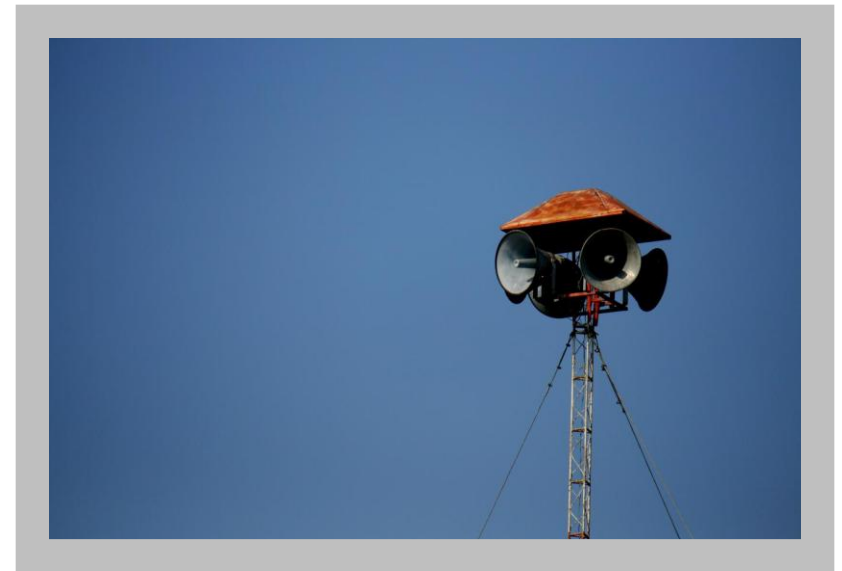
MILLER'S MAGIC NUMBER

7 \pm 2
chunks

SIMILARITY & PROXIMITY

DESIGN PRINCIPLES

6472928371
(647) 292-8371

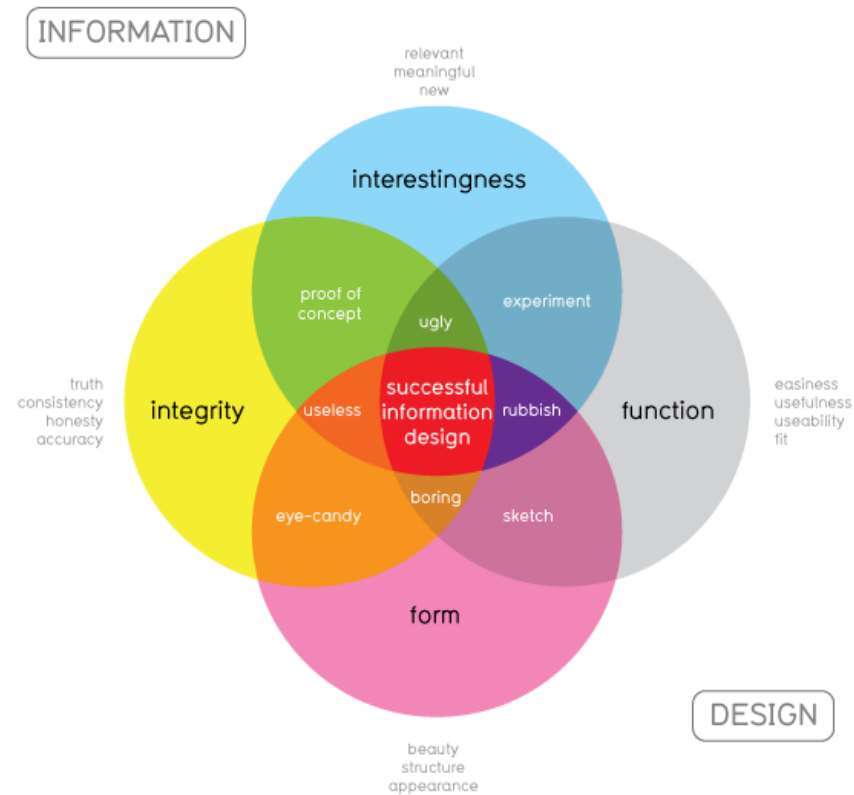


Community speaker at Wat Yang Kloi Kluea
Phichit, Thailand

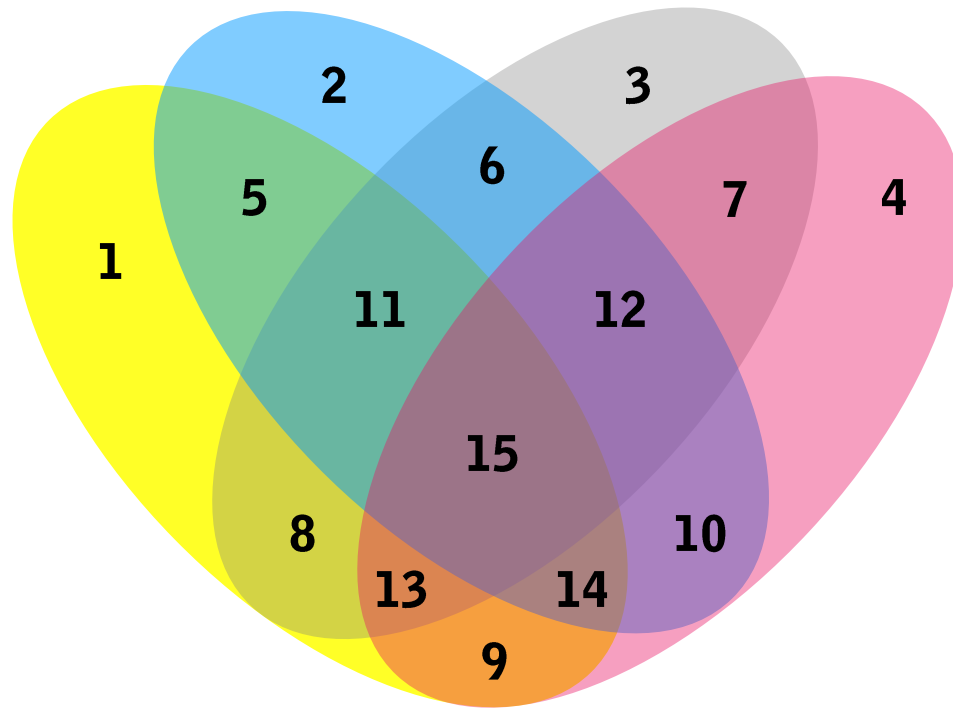
SIMILARITY & PROXIMITY

DESIGN PRINCIPLES

What Makes Good Information Design?



DESIGN PRINCIPLES



Credit: Madelaine Gogol
<http://research.stowers-institute.org/mcm/venny4.png>

DESIGN CRITIQUE

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

**Presentation
Design**

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

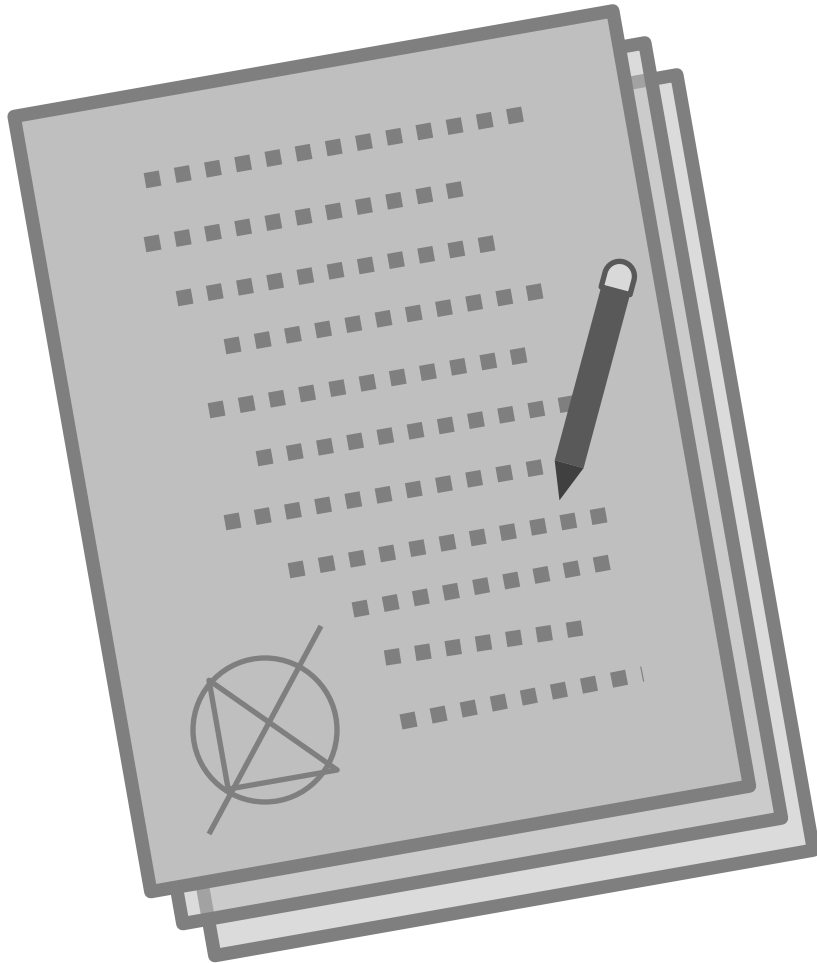
**Presentation
Design**

DESIGN TIPS

Finding
inspiration



DESIGN TIPS



**Take
notes**

DESIGN TIPS

Design

≠

Decoration



DESIGN TIPS

**Do not
reinvent
the wheel**



DESIGN TIPS

Pay attention to **details**

PLAY

DESIGN TECHNIQUES

TOOLS

LAYOUT

COLOR

TEXT

TABLE & CHART

IMAGE

TRANSPARENCY

DESIGN TECHNIQUES

**Presentation
Design**

MS PowerPoint

**Publication
Design**

Adobe InDesign

LaTeX

**Image
Processing**

Adobe Photoshop

photoshop.com

GIMP

Vector

Adobe Illustrator

Inkscape

TOOLS

**BREAKING
POWERPOINT
COGNITION
TRAP**

DESIGN TECHNIQUES

Ready-made templates

Low resolutions

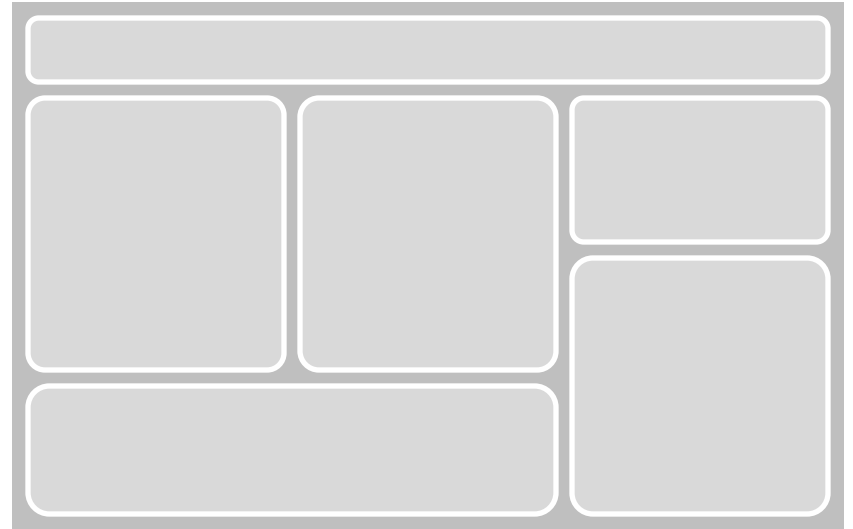
Presenter-oriented

(not content-oriented, not audience-oriented)

(Tufte, 2006, p.157)

POWERPOINT LIMITATIONS

DESIGN TECHNIQUES



Separation

Reading orientation

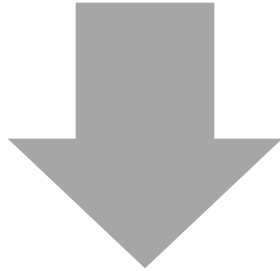
Organization

LAYOUT

DESIGN TECHNIQUES

How many sections?

How big will they be?



Proportion

LAYOUT

DESIGN TECHNIQUES

Paper folding Drawing (by hands or computer)

LAYOUT

DESIGN TECHNIQUES

Grid

Line

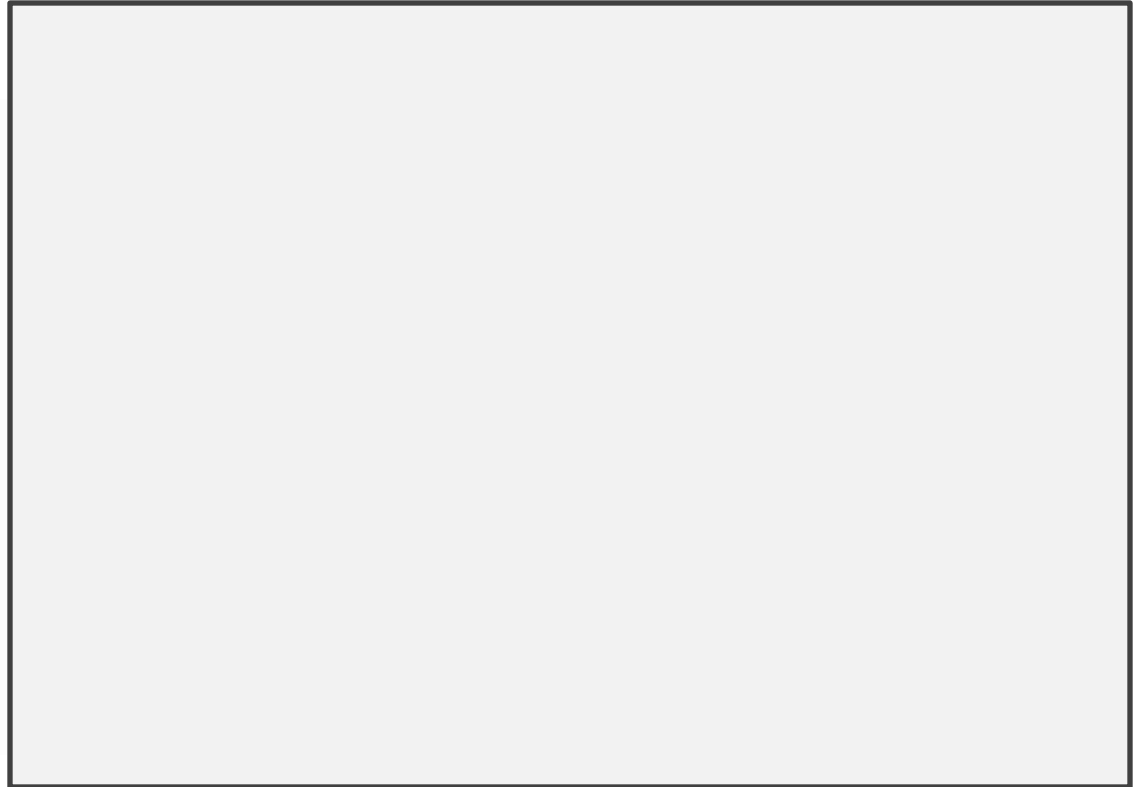
Alignment

Shape

Gradient

Layer

Space/margin



TECHNIQUE

LAYOUT

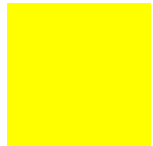
DESIGN TECHNIQUES



To label
(*color as noun*)



To measure
(color as quantity)



To represent or imitate reality
(color as representation)

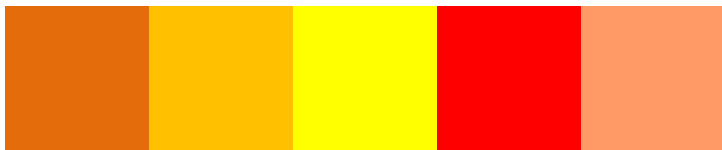


To enliven or decorate
(color as beauty)

(Tufte, 1990)

COLOR

DESIGN TECHNIQUES



Color Palette

Pantone™

{ Palette Generator
<http://www.degraeve.com/color-palette/> }

COLOR

DESIGN TECHNIQUES

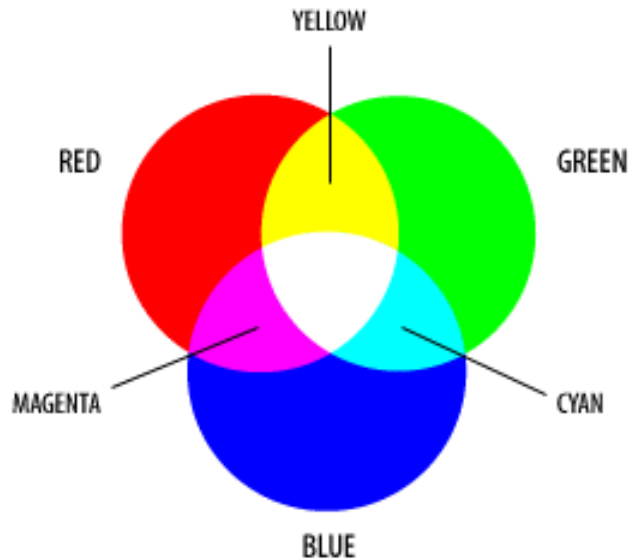


(Macandless, 2009)

COLOR PALETTE

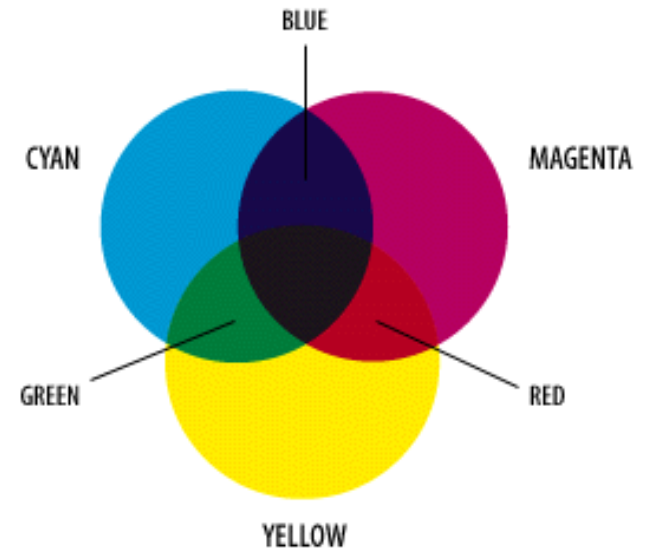
COLOR

DESIGN TECHNIQUES



RGB

#FFFFFF



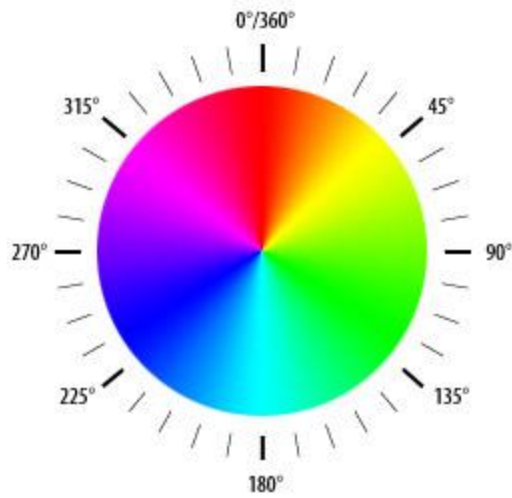
CMYK

Images from http://dba.med.sc.edu/price/irf/Adobe_tg/models/rgbcmy.html

SYSTEM

COLOR

DESIGN TECHNIQUES



Hue



Saturation



Lightness

Images from http://dba.med.sc.edu/price/irf/Adobe_tg/models/hsb.html

HSL SYSTEM

COLOR

DESIGN TECHNIQUES

Gradient

COLOR

DESIGN TECHNIQUES

The power of gray

COLOR

DESIGN TIPS

Background

First or Last?

COLOR

DESIGN TECHNIQUES

Data Reduction

Emphasis

Closure

Transition

Unity



Keyword

Highlight

Bullet

Word cloud

<http://www.smashingmagazine.com/2007/11/07/tag-clouds-gallery-examples-and-good-practices/>

TEXT

DESIGN TECHNIQUES

Typeface

Font size

Font color

UPPERCASE/lowercase

Bold, *italic*, underline

Unity

Consistency

Difference
(two step)

Portability

TYPOGRAPHY

TEXT

DESIGN TECHNIQUES

North Carolina

North Carolina

North Carolina

North Carolina

TYPOGRAPHY / TYPEFACE
TEXT

DESIGN TECHNIQUES

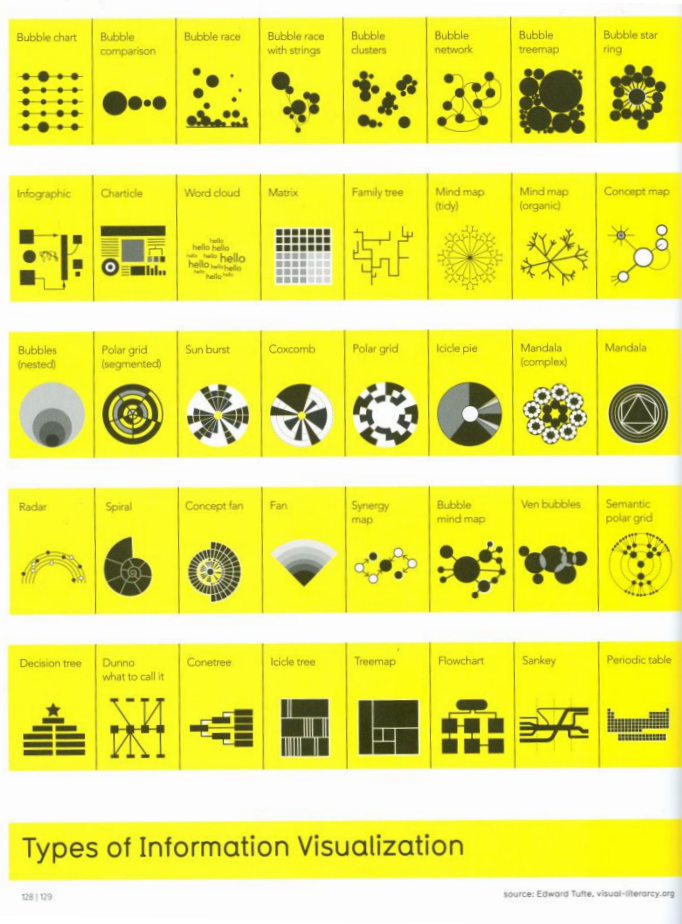
**What kind of
chart
should I use?**

DESIGN TECHNIQUES

	Participant	Before	After
Text	A	12	23
	B	15	30
Grid	C	12	34
	Total	39	87

TABLE

DESIGN TECHNIQUES







































































Tufte's index

(Macandless, 2009)

CHART






DESIGN TECHNIQUES

A PERIODIC TABLE OF VISUALIZATION METHODS

 C continuum	<div><div>Data Visualization Visual representations of quantitative data in schematic form (either with or without axes)</div><div>Information Visualization The use of interactive visual representations of data to amplify cognition. This means that the data is transformed into an image, it is mapped to screen space. The image can be changed by users as they proceed working with it</div><div>Concept Visualization Methods to elaborate (mostly) qualitative concepts, ideas, plans, and analyses.</div></div> <div><div>Strategy Visualization The systematic use of complementary visual representations in the analysis, development, formulation, communication, and implementation of strategies in organizations.</div><div>Metaphor Visualization Visual Metaphors position information graphically to organize and structure information. They also convey an insight about the represented information through the key characteristics of the metaphor that is employed</div><div>Compound Visualization The complementary use of different graphic representation formats in one single scheme or frame</div></div>										 G graphic facilitation						
 Tb table	 Ga cartesian coordinates											 St story template	 Tr one	 Ct cartoon			
 Pi pie chart	 L line chart											 Co communication diagram	 Fp high plus	 Cs concept skeleton	 Br bridge	 Fu funnel	 Ri rich picture
 B bar chart	 Ac area chart	 R radar chart	 Pa parallel coordinates	 Hy hypocubic tree	 Cy cycle diagram	 T timeline	 Ve venn diagram	 Mi mindmap	 Sq square 11 opposition	 Cc concentric circles	 Ar argument side	 Sw swim lane diagram	 Gc gantt chart	 Pm perspectives diagram	 D dilemma diagram	 Pr parameter ruler	 Kn knowledge map
 Hi histogram	 Sc scatterplot	 Sa sankey diagram	 In information lens	 E entity relationship diagram	 Pt petri net	 Fl flow chart	 Cl clustering	 Lc layer chart	 Py maze pyramid technique	 Ce cause-effect chain	 Tl tulvin map	 Dt decision tree	 Cp cpm critical path method	 Cf concept fan	 Co concept map	 Ic iceberg	 Lm learning map
 Tk box plot	 Sp spectrogram	 Da data map	 Tp treemap	 Gn one tree	 Sy system type / simulation	 Df data flow diagram	 Se semantic network	 So soft system modeling	 Sn synergy map	 Fo form field diagram	 Ib ili argumentation map	 Pr process event chain	 Pe port chart	 Ev evocative knowledge map	 Y yee diagram	 Hh lower 9 hell chart	 I idiomat

Cy Process Visualization





























Hy Structure Visualization

 Overview
 Detail
 Detail AND Overview
 Divergent thinking
 Convergent thinking

Note: Depending on your location and connection speed it can take some time to load a pop-up picture.

© Ralph Lengler & Martin J. Eppler, www.visual-literacy.org

version 1.5

 Su supply demand curve	 Pc performance charting	 St strategy map	 Oc organization chart	 Ho house of quality	 Fd feedback diagram	 Ft failure tree	 Mq magic quadrant	 Ld life-cycle diagram	 Po porter's five forces	 S s-cycle	 Sm stakeholder map	 Is ishikawa diagram	 Tc technology roadmap
 Ed edgeworth box	 Pf portfolio diagram	 Sg strategic game board	 Mz mintzberg's organograph	 Z zwicky's morphological box	 Ad affinity diagram	 De decision discovery diagram	 Bm jig matrix	 Stc strategy canvas	 Vc value chain	 Hy hype-cycle	 Sr stakeholder rating map	 Ta tapi	 Sd spray diagram

(http://www.visual-literacy.org/periodic_table/periodic_table.html)

CHART

DESIGN TECHNIQUES

Info Design Pattern

([http://interface.fh-potsdam.de/
infodesignpatterns/patterns.php](http://interface.fh-potsdam.de/infodesignpatterns/patterns.php))

CHART

DESIGN TECHNIQUES

Number of variable

Type of variable

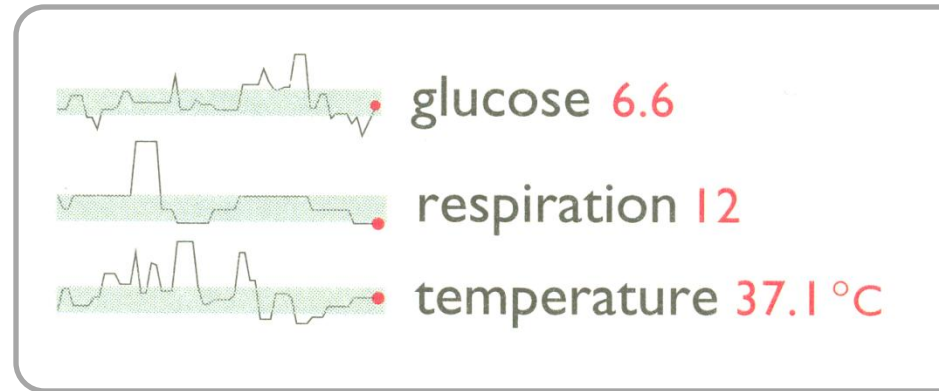
Type of value

Dimension of analysis

SPECIFICATION

CHART

DESIGN TECHNIQUES



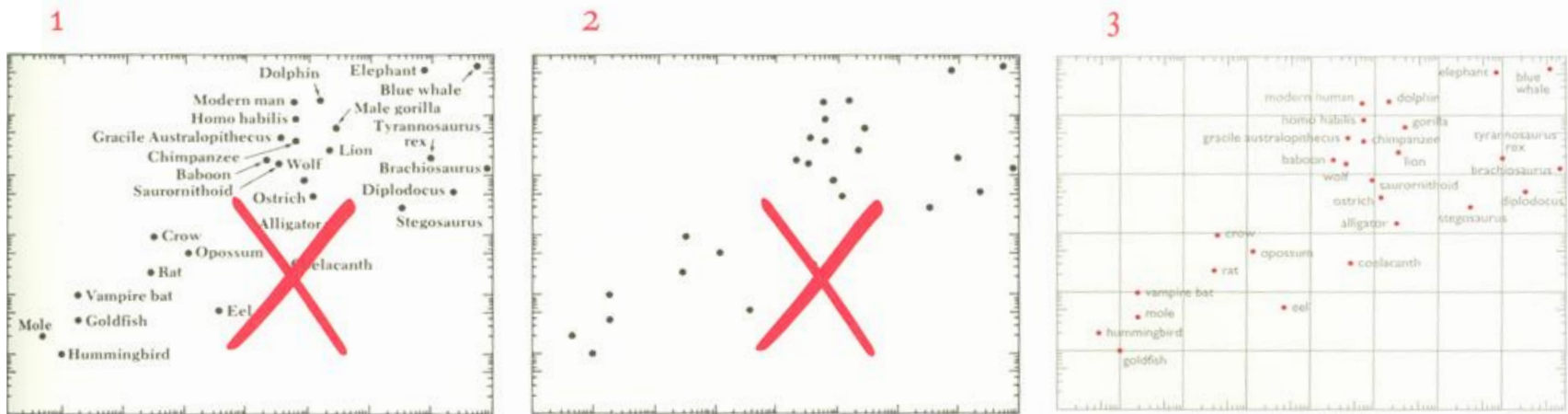
Sparkline

(Tufte, 2006, p.47)

CONTEXT

CHART

DESIGN TECHNIQUES



Cluster

(Tufte, 2006, p.121)

CONTEXT

CHART

[REGISTER](#)
[LOGIN](#)
[COSTUME](#)
[SELECT ALL](#)
[18](#)
[19](#)
[20](#)
[21](#)
[22](#)
[23](#)
[24](#)
[25](#)
[26](#)
[27](#)
[28](#)
[29](#)
[30](#)
[31](#)

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[AUSTRALIA](#)
[EUROPE](#)
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Cogan, Hubbard, and Kessler: A Better Way to Reform Health Care

Rove: What the GOP Should Say at the Health Summit

USA, Canada used to high drama; gold medal on the line Thursday

Stephen Colbert talks to Vonn during 'Vancouverage'

Crash fuels tensions between Vonn, Mancuso

Two Men Plead Not Guilty to New Charges in Foiled NYC Bomb Plot

NYC Braces for 13 Inches of Snow From Lingerin Storm

Gridlock in Congress Hurts Obama's Global Image, Clinton Says

Team sentenced for Facebook sex scam

Team accused of blackmailing senators for sex on Facebook sentenced to 15 years

Subdued Sen. Patterson ducks questions on suspended aide David Johnson's abuse

Teen sentenced for Facebook sex scam

Team accused of blackmailing senators for sex on Facebook sentenced to 15 years

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Teen sentenced for Facebook sex scam

Team accused of blackmailing senators for sex on Facebook sentenced to 15 years

Subdued Sen. Patterson ducks questions on suspended aide David Johnson's abuse

Toyota's President Meets With U.S. Transportation Secretary

Bernanke Says Fed Reviewing Goldman Sachs Relations With Greece

Dollar Rises as Economic Data Worsens Worldwide

US HOT STOCKS: Palm, Coca-Cola Enterprises, Express Scripts

Madoff daughter-in-law seeks name change

Bernanke wants answers on Goldman role in Greece

Madoff Operations Director Bowne Arrested by FBI

Schering-Plough Loses on Wetlands

Red Revolution: Goldman's Moves on Greek Debt

WORLD FOREX: Euro Plunges As Demand For Risk Wanes

European Stocks Decline on Greek Rating Concerns; BHP, Hays Fall

Stocks slump on debt woes

US HOT STOCKS: Palm, Coca-Cola Enterprises, Express Scripts

Madoff daughter-in-law seeks name change

Bernanke wants answers on Goldman role in Greece

Madoff Operations Director Bowne Arrested by FBI

Schering-Plough Loses on Wetlands

Red Revolution: Goldman's Moves on Greek Debt

India-Pakistan talks centre on terrorism but fail to make progress

Nigeria Senate Sets Time Limit for President's Absence

Officials: Taliban leader killed by missile strike

Clinton cites Iranian effort to sway Iraqi vote

Can Iran's democracy clock outpace its nuclear clock?

New Ukrainian President Touts Domestic Reforms, Non-Aligned Foreign Policy

Israeli official: Dubai hit did not affect intel ties with Israel

Pakistan officials: Nearly 15 top Taliban held

EU: West Bank is not a part of Israel

Key dates in Thailand's political crisis

Does Italy's Google Conviction Portend More Censorship?

FCC Wants to Transition Broadcast TV Spectrum To Mobile Use

Google Hit With Anti-Trust Complaints in Europe

Apple Adds and Removes 'Explicit' Category from App Store

Nintendo DSi XL Will Offer Two Larger Screens, Much More than Games

PC on Your TV, Please Rob Me, Airport After Hours

Hands-on with Metroid: Other M

Palm CEO Forecast at Phone, BlackBerry, Main Lanes

Hands-on with Super Mario Galaxy 2

Apple Adds and Removes 'Explicit' Category from App Store

Nintendo DSi XL Will Offer Two Larger Screens, Much More than Games

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Palm CEO Forecast at Phone, BlackBerry, Main Lanes

Hands-on with Super Mario Galaxy 2

Ellen DeGeneres and Simon Cowell: friends or foes?

'Cop Out' falls shy of its inspirations

Cablevision posts lower-than-expected profit

Conan O'Brien joins Twitter, asks for help

Simon Cowell: Ridge Into Male Idol Wastebes

Conan O'Brien Joins Twitter

Andrew Koenig's Parents -- Why We Walked

House Passes Bill That Would Create More Unemployment for Homeless

House Passes Bill That Would Create More Unemployment for Homeless

House Passes Bill That Would Create More Unemployment for Homeless

House Passes Bill That Would Create More Unemployment for Homeless

newsmap

Thu February 25, 2010 14:19:23

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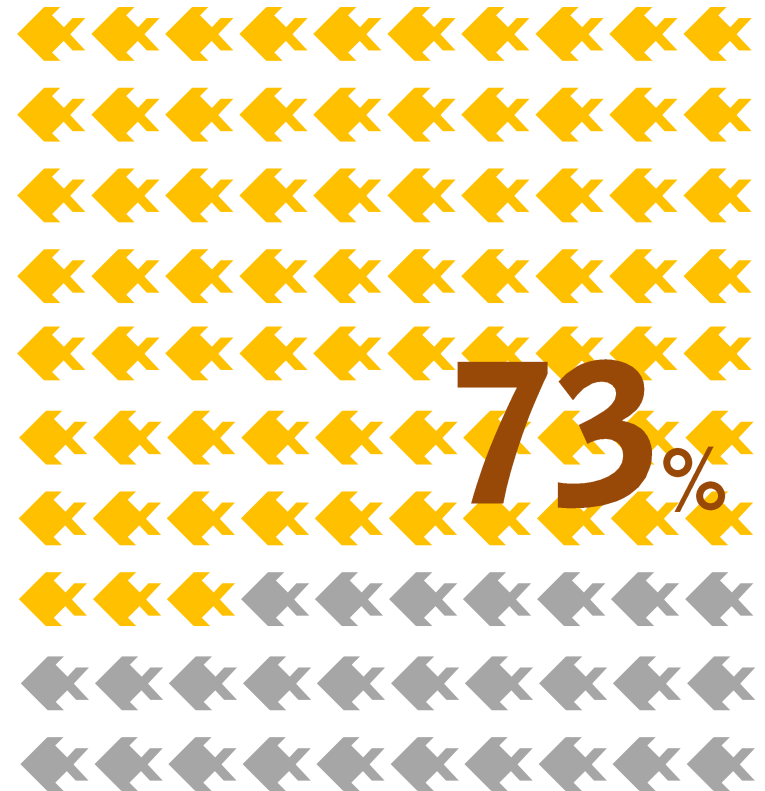
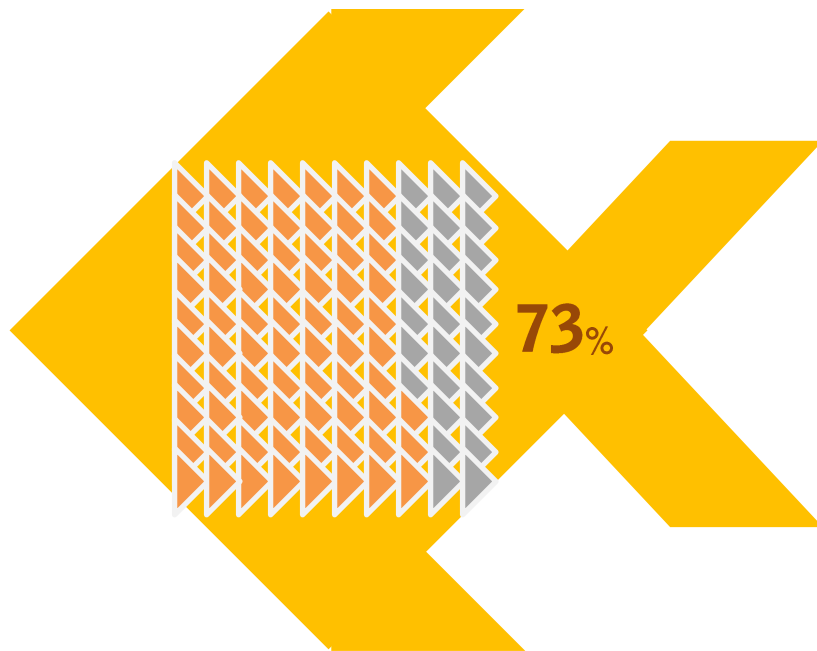
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[SEARCH](#)

COLOR

CHART

DESIGN TECHNIQUES



MACRO VS. MICRO

CHART

DESIGN TECHNIQUES

Topic	Non e	--	--	Half	--	--	All							
The student's research (n=97)	0	0	1	14	16	42	24							
Research in the field (n=96)	0	6	23	29	15	17	6							
The student's classwork (n=95)	Topic				Advisor Responses		Advisee Responses		Absolute difference between Yes %					
The major people, schools, publications in the field					No	Yes	No	Yes						
Upcoming conferences (n=96)	Advisor's personal life				3 (4%)		78 (96%)		8 (13%)	54 (87%)	9			
The student's post-graduation job opportunities (n=97)	Advisee's personal life				4 (5%)		78 (95%)		10 (16%)	53 (84%)	9			
Your research (n=97)	Upcoming conferences				4 (5%)		78 (95%)		14 (23%)	47 (77%)	18			
How to prepare presentations and publications	Advisor's research				5 (6%)		75 (94%)		13 (21%)	49 (79%)	15			
How to be a	Topic			Non e	--	--	Half	--	--	All		6 (10%)	57 (90%)	0
How to write												10 (17%)	50 (83%)	7
University re (n=97)	Your research (n=69)			0	2	3	21	9	21	13		13 (21%)	49 (79%)	10
Administrati	Research in the field (n=69)			3	18	14	19	3	11	1				
The student's	The major people, schools, publications, etc. in the field (n=69)			9	12	19	8	11	5	5		17 (27%)	45 (73%)	16
Your person	Your post graduation job opportunities (n=69)			6	14	14	13	9	5	8				
	Your advisor's research (n=68)			12	17	14	12	3	7	3		20 (33%)	40 (67%)	21
	Your classwork (n=69)			10	19	15	13	4	4	4		21 (35%)	39 (65%)	22
	Your personal life (n=67)			12	23	13	11	1	5	2				
	Upcoming conferences (n=68)			13	23	13	12	2	4	1		8 (13%)	54 (87%)	0
	Your advisor's personal life (n=68)			16	27	11	7	1	3	3		13 (21%)	49 (79%)	7
	University resources available to you (n=69)			20	27	11	6	1	3	1		18 (30%)	43 (70%)	9
	Administrative tasks (n=69)			19	19	18	9	2	2	0				
	How to prepare presentations and publications (n=69)			23	17	12	5	4	5	3		31 (51%)	30 (49%)	24
	How to be a successful teacher (n=69)			25	16	12	10	3	0	3				
	How to write a grant proposal (n=69)			39	14	8	2	3	3	0				

Cassidy Sugimoto (2009)

Mentoring, collaboration, & interdisciplinarity: An evaluation of the scholarly development of Library and Information Science doctoral students

DIMENSION

CHART

Results

Topics of conversation



Mentoring: Cultivation

DESIGN TECHNIQUES

DIGITAL CURATION CHALLENGES, CURRICULA & COMPETENCIES

HELEN R. TIBBO, CAROLYN HANK, & CHRISTOPHER A. LEE
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

ABSTRACT

The Digital Curation Curriculum (DigCCurr) project (IMLS RE-05-06-0044) is developing a graduate-level curriculum to prepare students for digital curation in various environments. This poster reports the findings from a survey of digital curation professionals, assessing their perspectives on barriers to digital curation; core curriculum competencies and functions; and professional competencies and hiring practices.

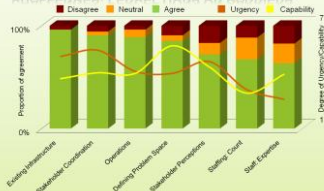
METHODS

Sample: DigCCurr 2007 attendees
Instrument:
Twenty-five item web-based survey (March-April 2008)

RESPONDENTS' PROFILE

50 completed surveys out of 221 distributed (25% response rate)
On average about 6 years in current position.
Institutional setting of respondents:

CHALLENGES: PERCEPTIONS ON BARRIERS



The last time a digital curation job was posted at the institution:



CURRICULUM: CORE FUNCTIONS

How much function should be emphasized in digital curation curriculum? (Average rating: 0 = Not at all; 1 = Somewhat; 2 = Moderately; 3 = Heavily)



CURRICULUM: OTHER DIMENSIONS OF DIGITAL CURATION

How much to emphasize in curriculum? (Average rating: 0 = Not at all; 1 = Somewhat; 2 = Moderately; 3 = Heavily)



PROFESSIONAL ATTRIBUTES

How much were competencies considered when evaluating job applicants? (Average ranking on importance: 1 = Least; 6 = Most important)

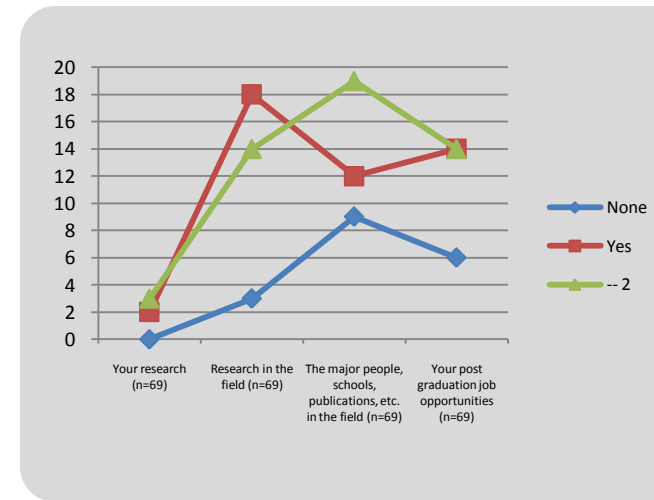


DIMENSION

CHART

DESIGN TECHNIQUES

MS Office Online tools Manual



TOOLS

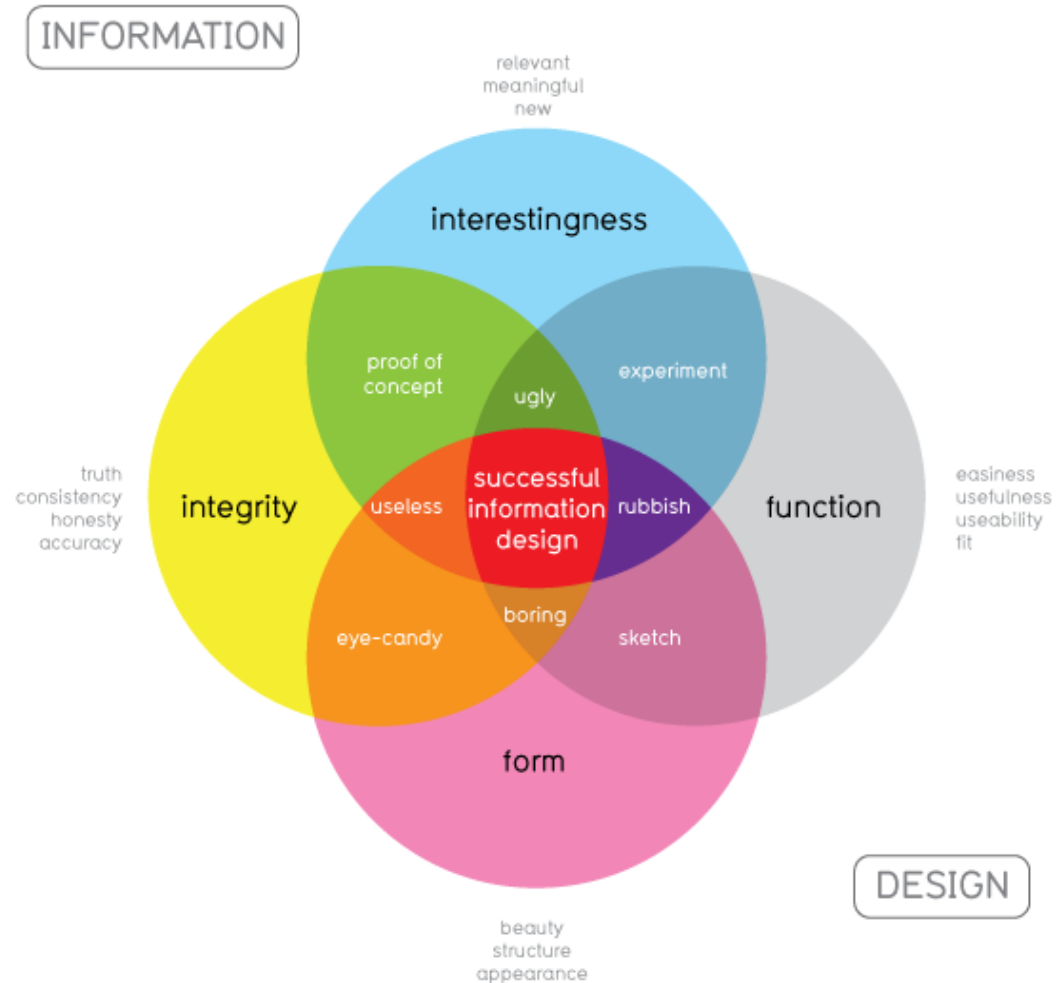
CHART

DESIGN TECHNIQUES

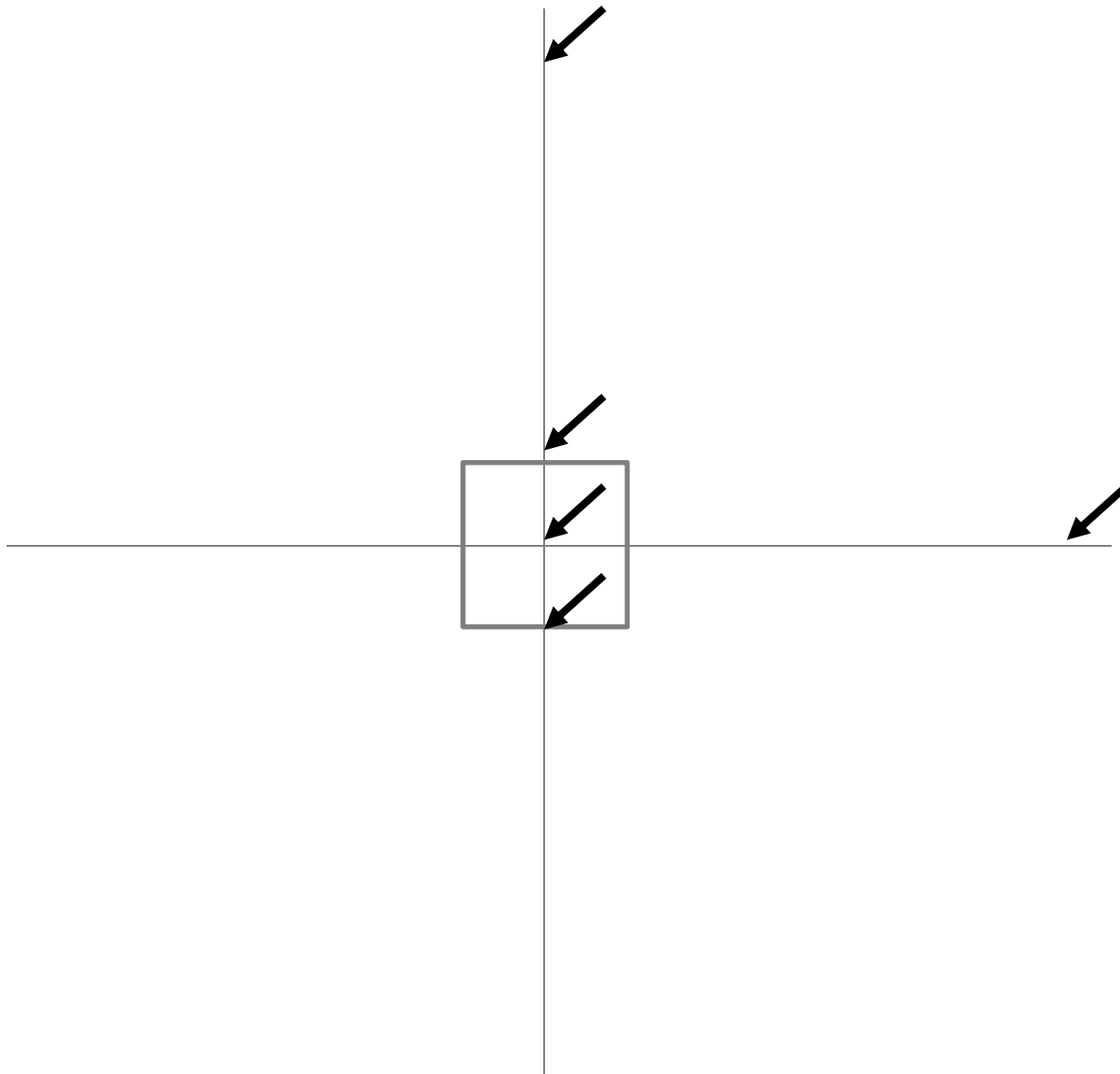
**Demystify the
illusion**

CHART

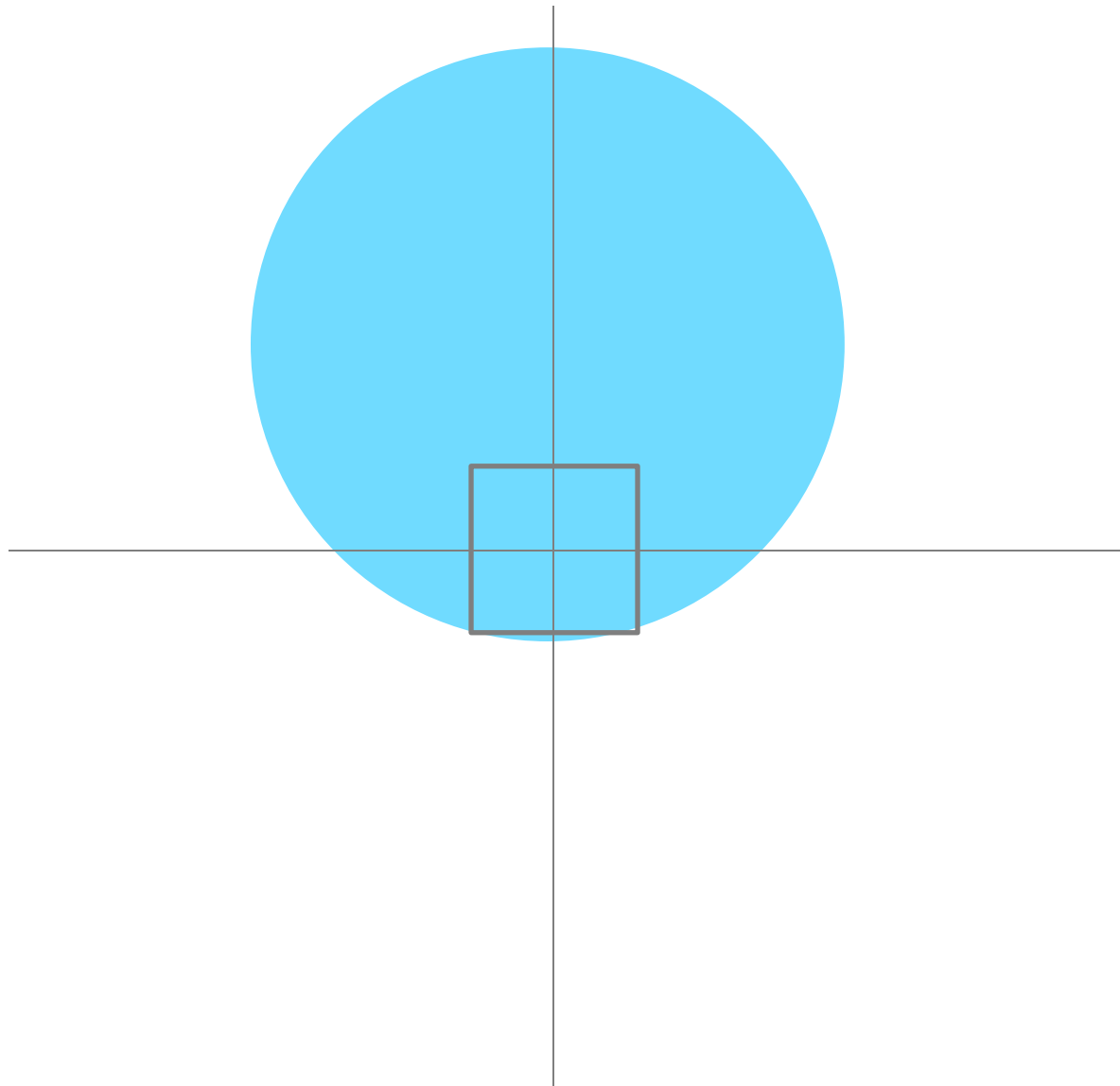
What Makes Good Information Design?



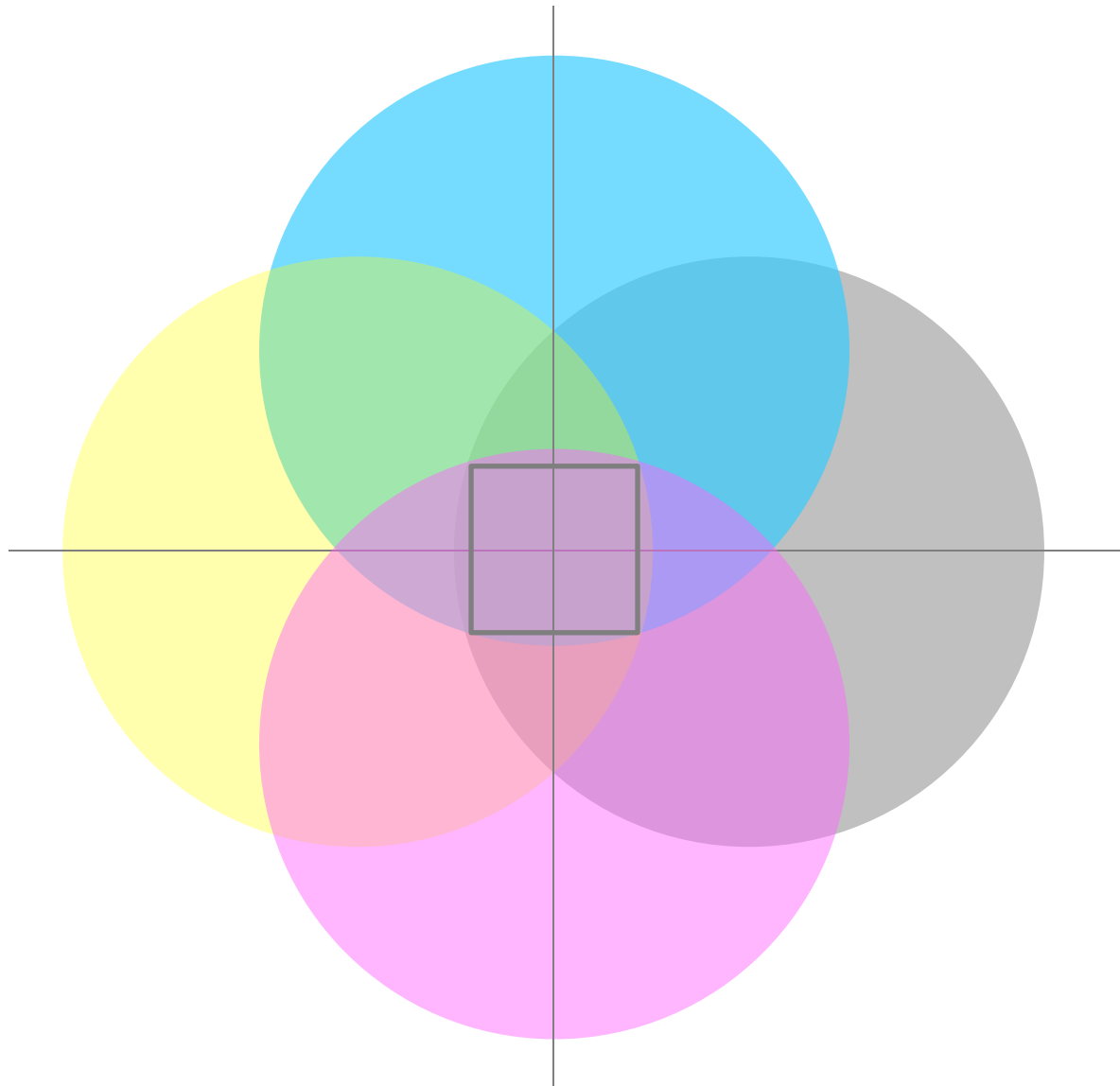
1



2



3

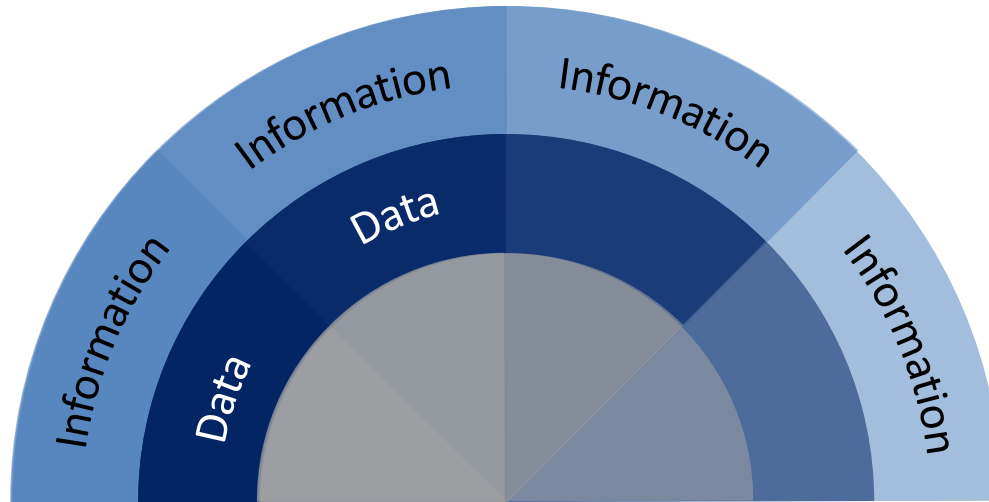


DESIGN TECHNIQUES

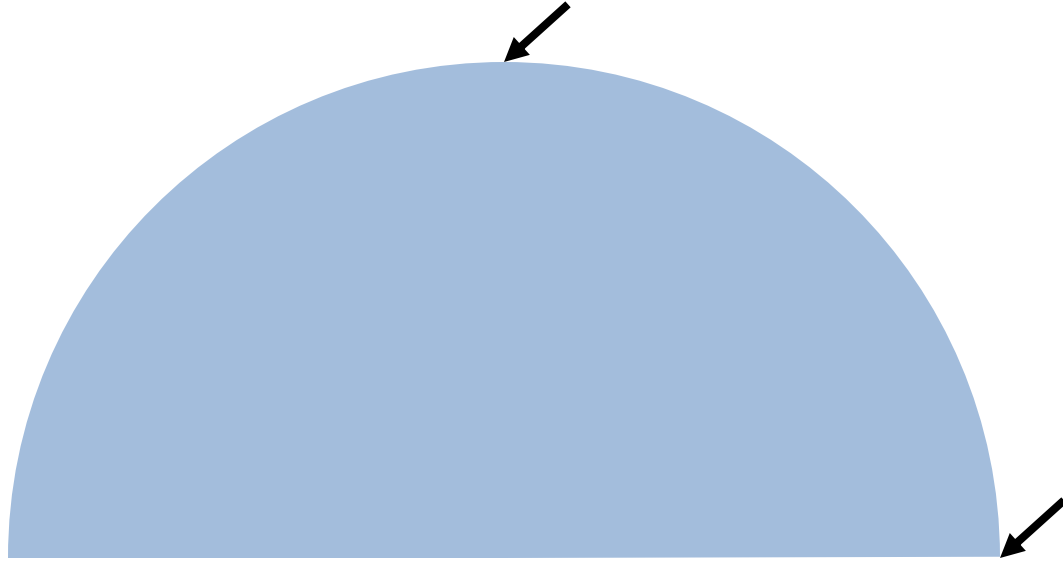


COLOR PALETTE

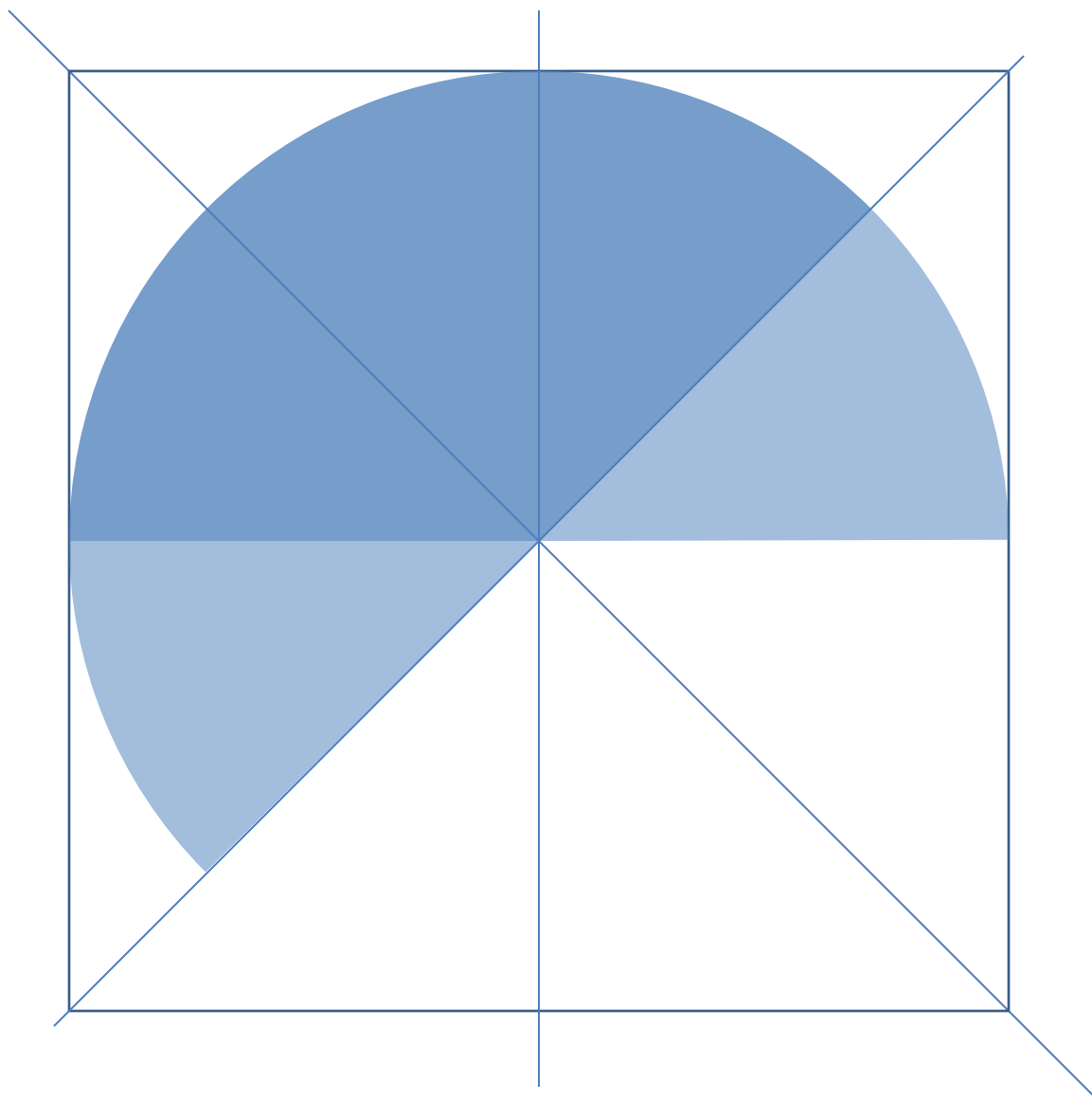
COLOR



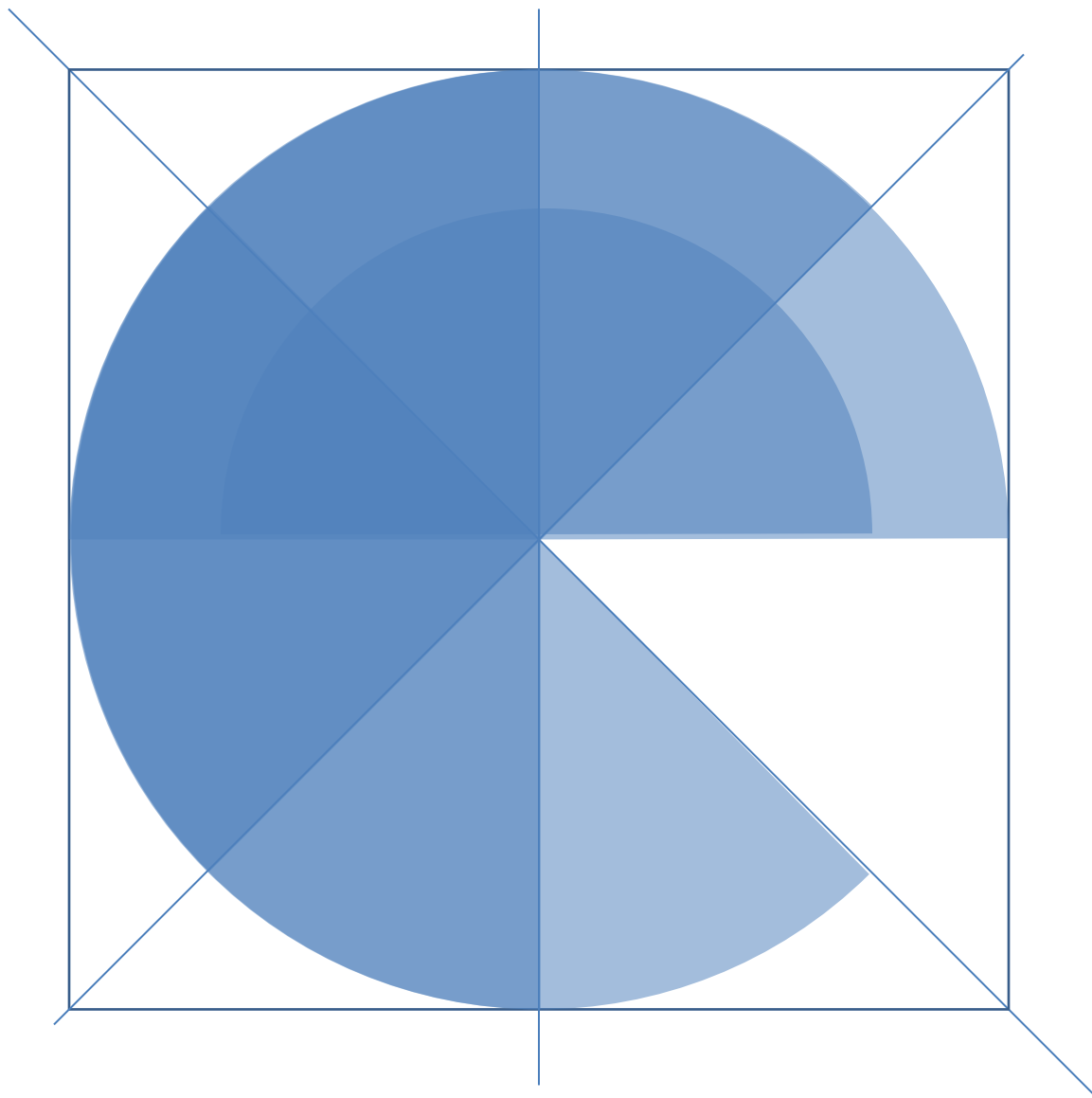
1



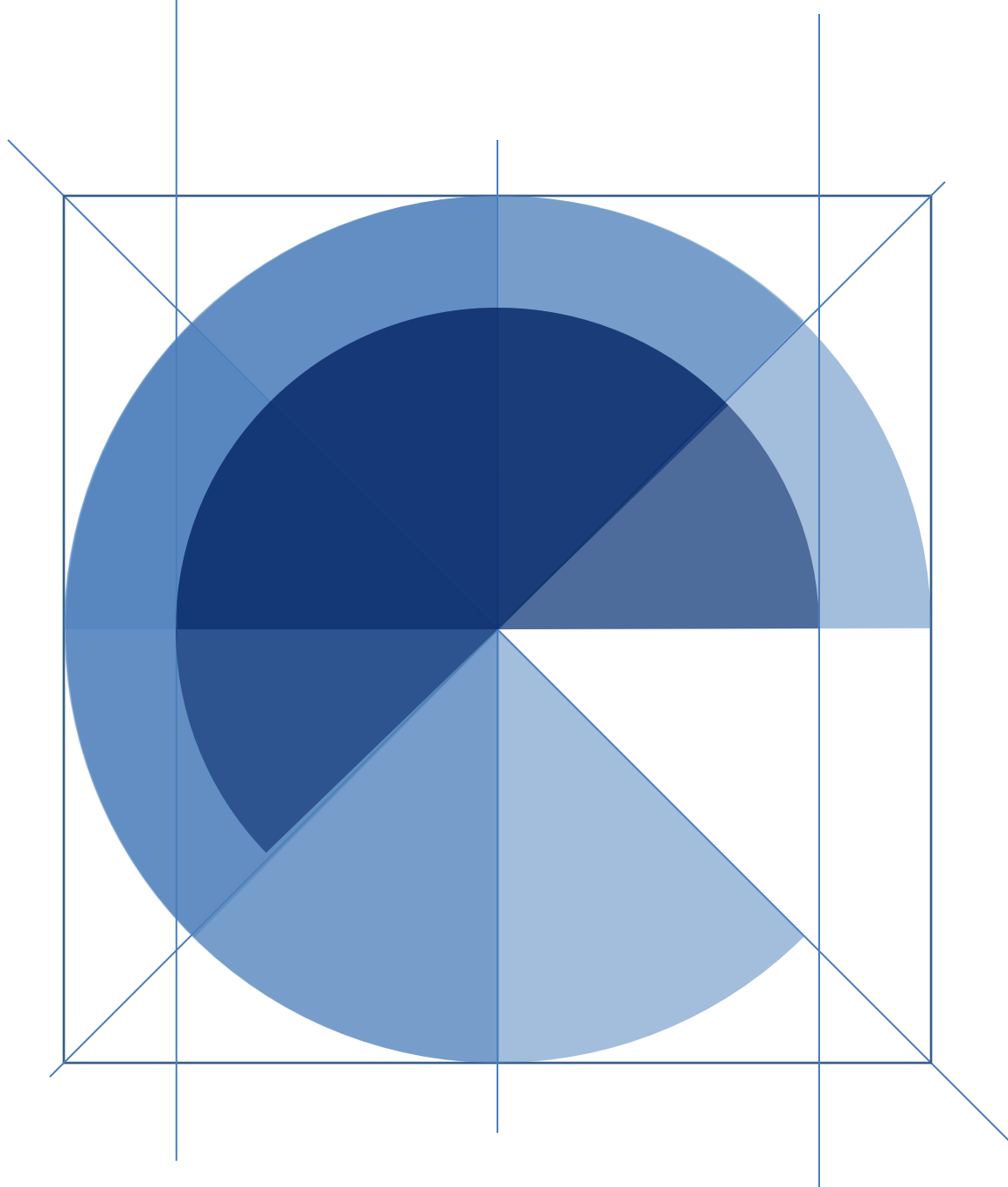
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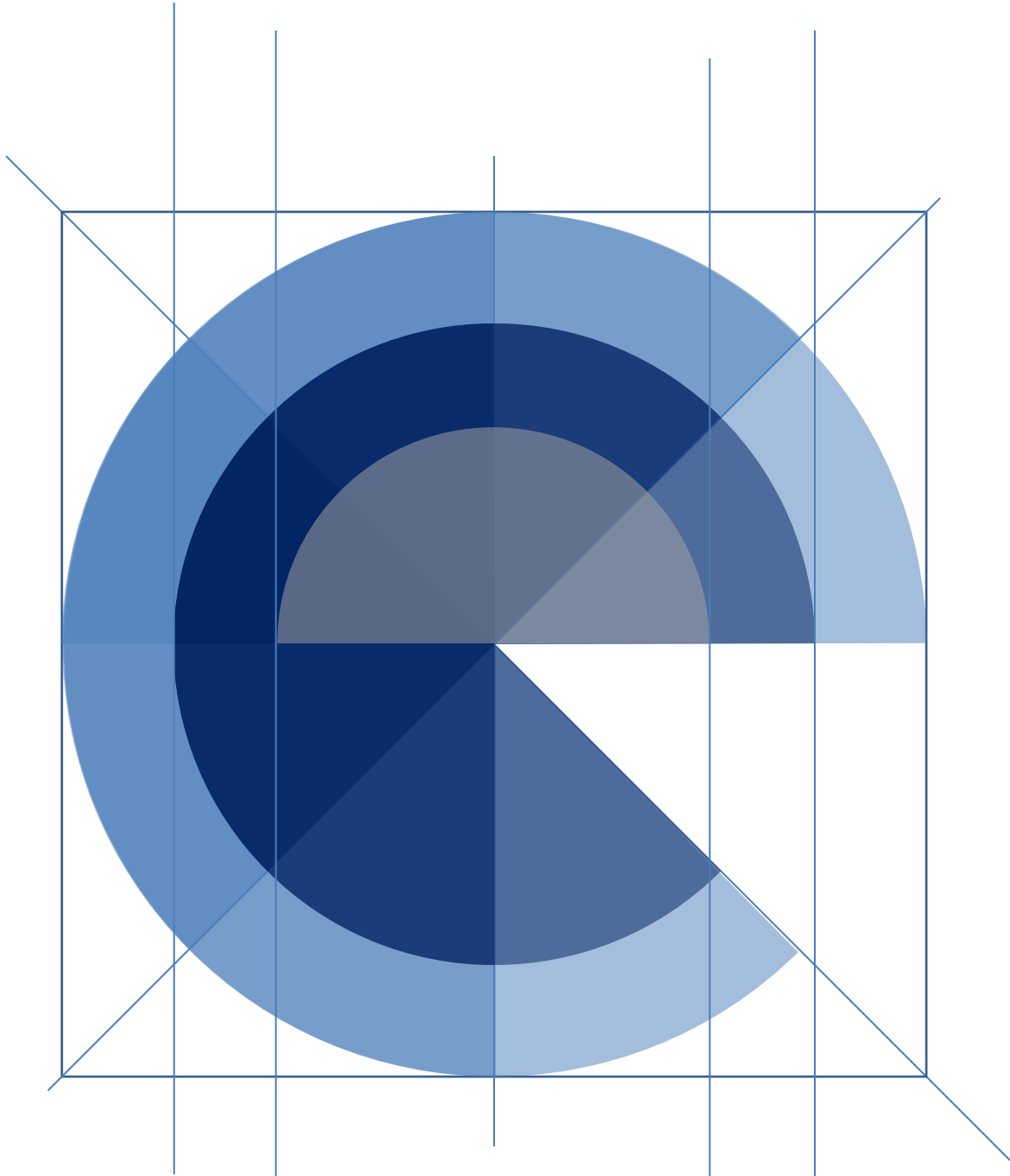
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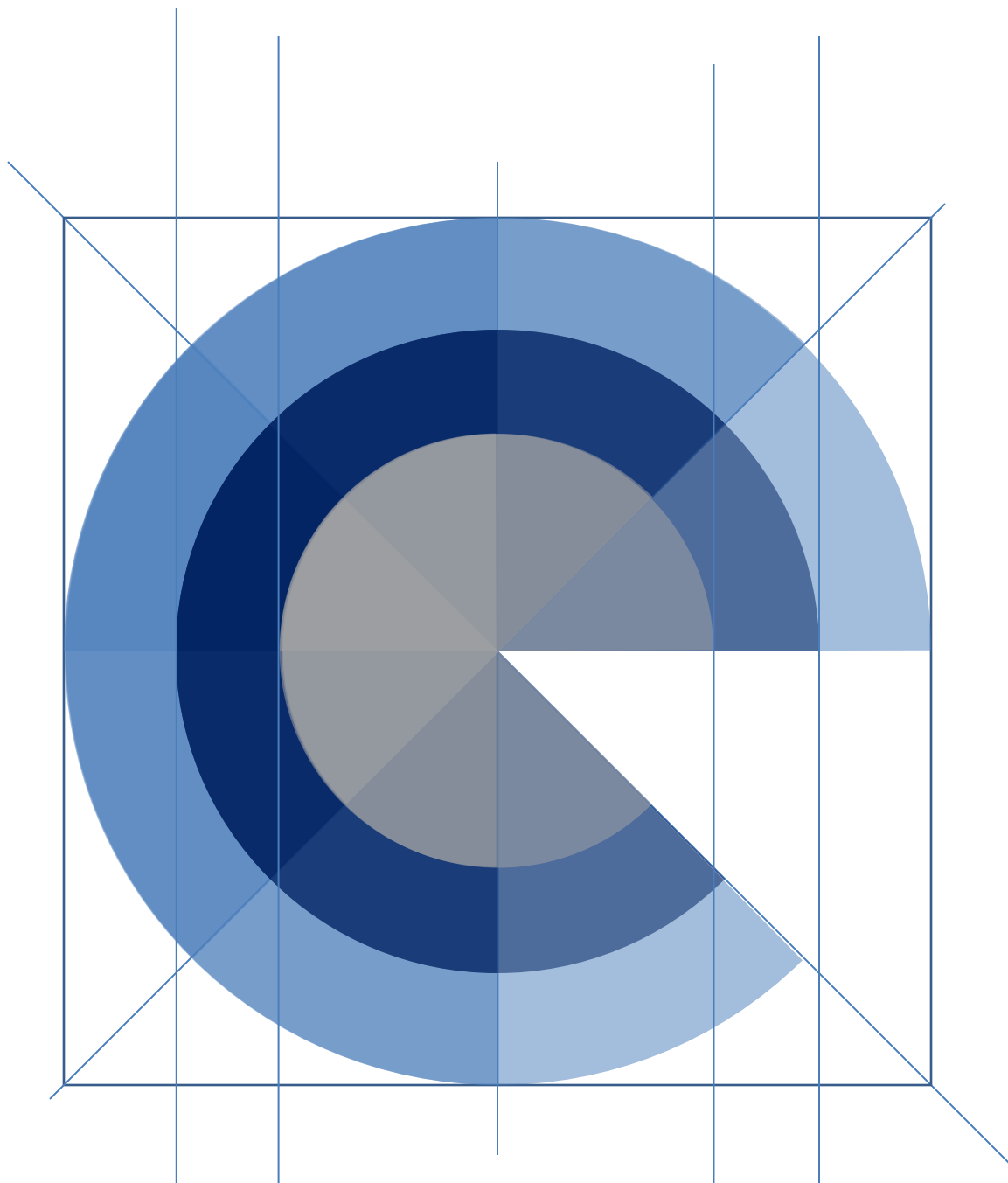
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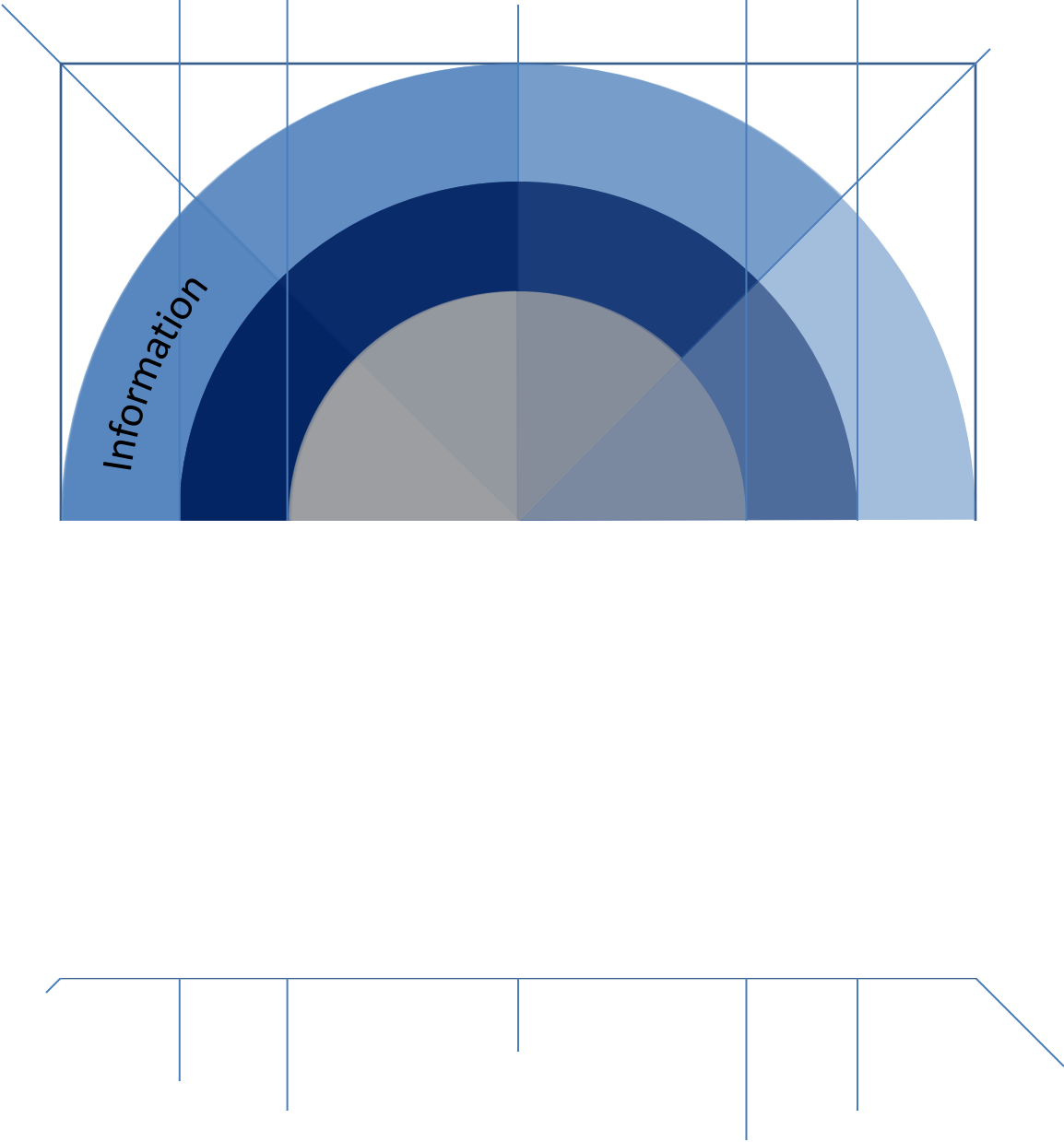
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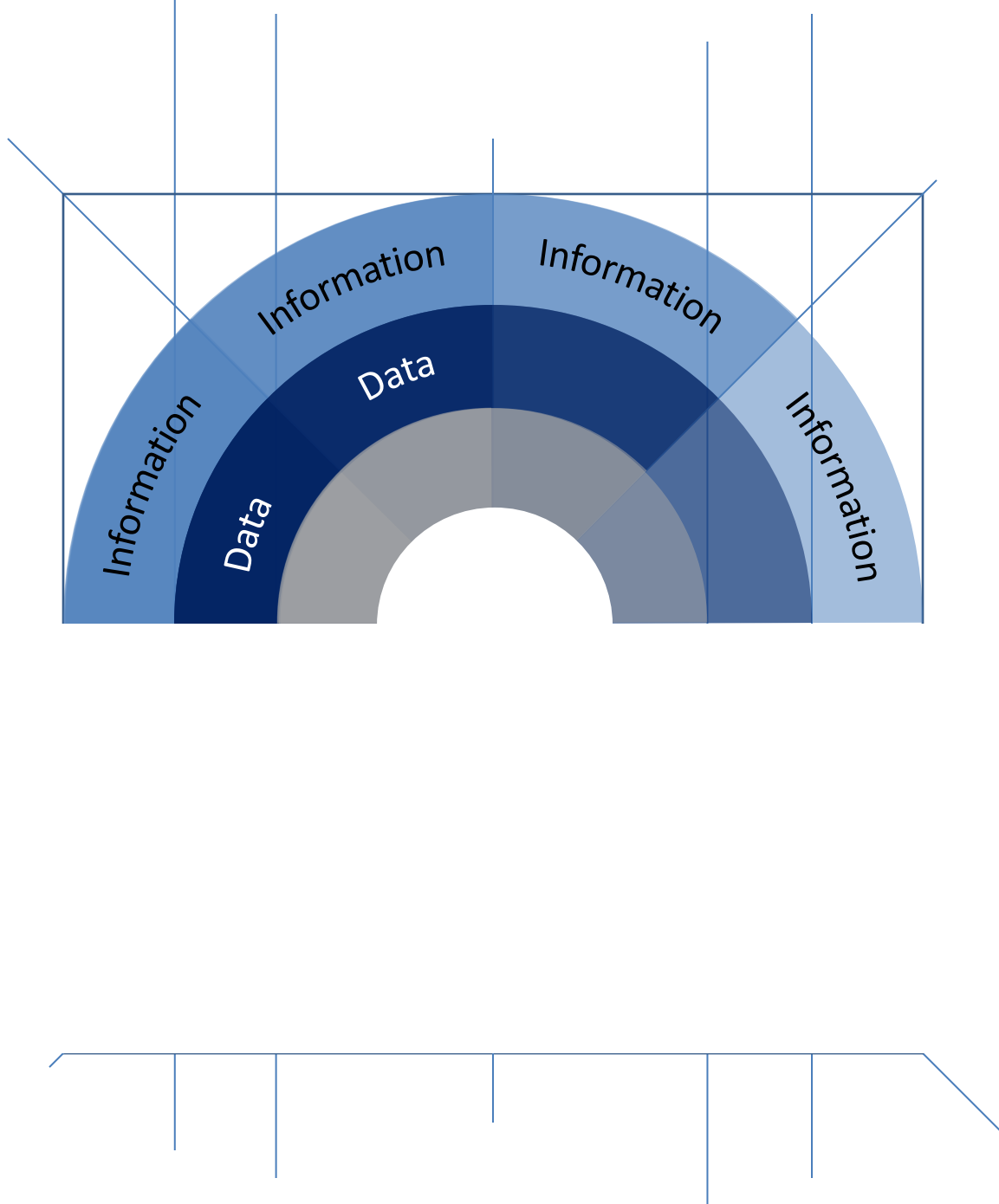
6



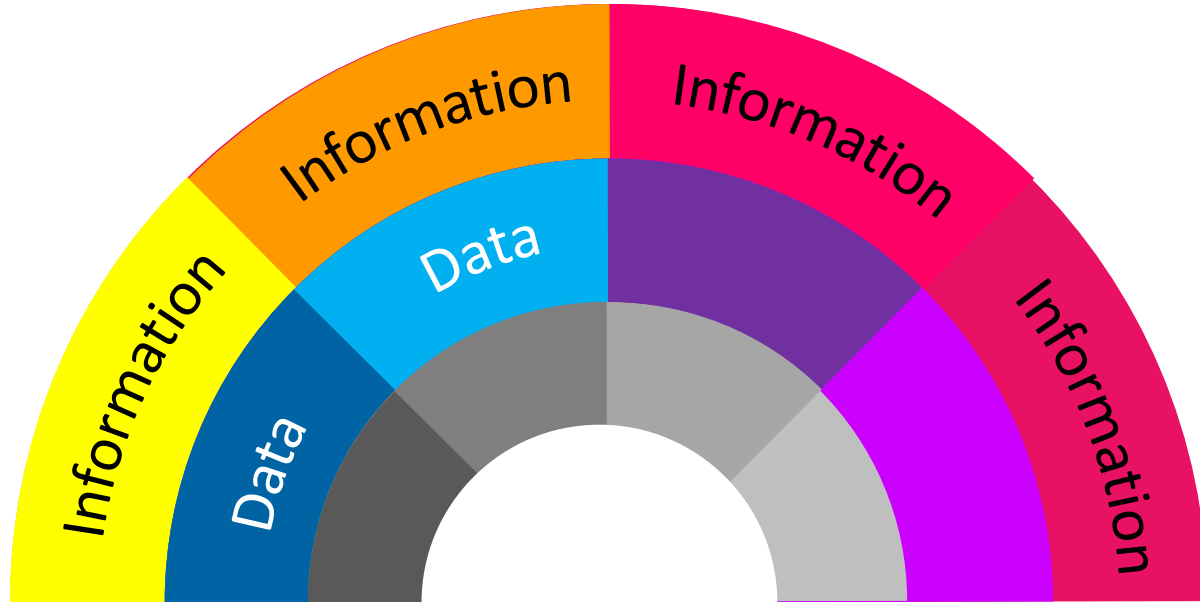
7



8



9



DESIGN TECHNIQUES



Resolution

Unity

Usefulness

Interestingness

Transition

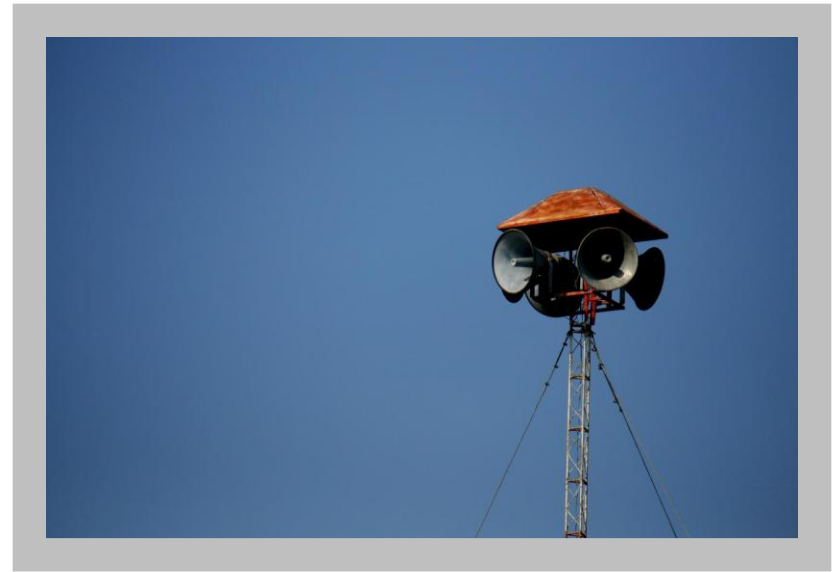
Closure

Dominance

Color

IMAGE

DESIGN TECHNIQUES



**CONTINUATION & CLOSURE
IMAGE**

DESIGN TECHNIQUES



Macro

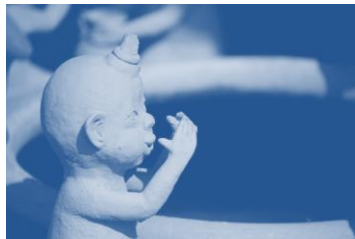


Tele

EMPHASIS

IMAGE

DESIGN TECHNIQUES



COLOR

IMAGE

DESIGN TECHNIQUES

Working with
vector

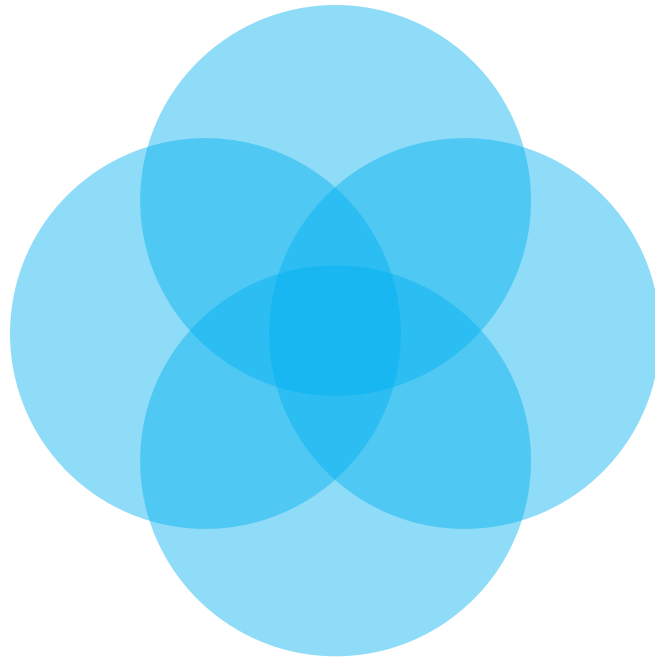
IMAGE

DESIGN TECHNIQUES

**Beware of mixing
photo and vector!**

IMAGE

DESIGN TECHNIQUES



Transparency Tool

SHAPE

TRANSPARENCY

DESIGN TECHNIQUES



PHOTO

TRANSPARENCY

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

**Presentation
Design**

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

**Presentation
Design**

POSTER DESIGN

1 Paper size

2 Layout

SETUP

POSTER DESIGN

File format

Color calibration

Transparency

Photos

PRINTING ISSUES

AGENDA

**Design
Principles**

**Design
Techniques**

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**Presentation
Design**

AGENDA

**Design
Principles**

**Design
Techniques**

**Poster
Design**

**Presentation
Design**

PRESENTATION DESIGN

How many slides?

Idea & Time

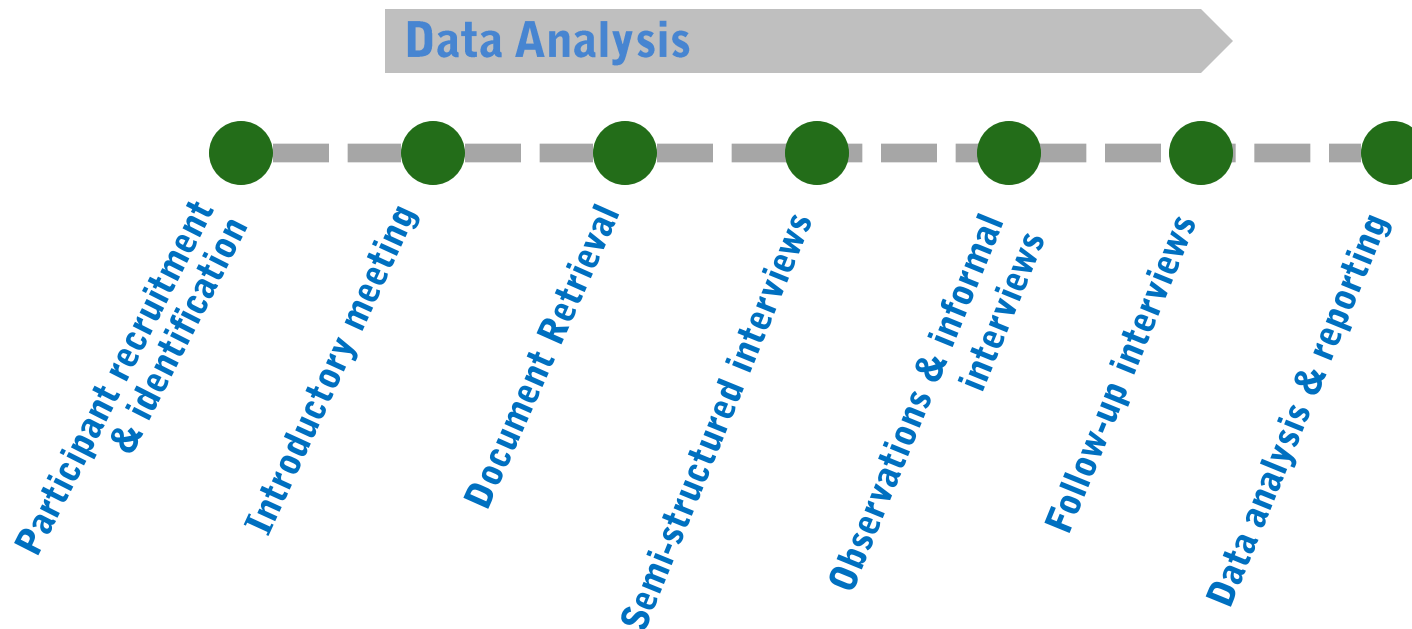
PRESENTATION DESIGN

Line-by-line
Idea-by-idea
Slide-by-slide

Context

CONTINUATION & TRANSITION

STUDY PROTOCOL



Dana Hanson-Baldauf (2009)

Exploration of the Everyday Life Information Practices, Needs, and Challenges of Young Adult with Intellectual Disabilities

STUDY PROTOCOL

Data Analysis

Participant recruitment & identification

Recruitment:

- Seek participants from previous study
- Contact Chapel Hill-Carrboro Public Schools
- Other: Chapel Hill-Carrboro Special Olympics, ARC, Residential Services Inc., Orange-Person-Chatham Group Homes

Identification:

- Criterion based – age and communication ability

Introductory meeting

Purpose:

- Share study details, participant commitment, and compensation for time
- Obtain informed consent
- Obtain permission to access formal and informal documents
- Rapport building

Document Retrieval

Type:

- Formal documents (IEPs, habilitation plans, vocational plans, behavioral modification plans)
- Informal documents (journals/diaries, calendars, homework, computer transaction logs)

STUDY PROTOCOL

Data Analysis



Semi-structured interviews

Schedule:

- Approximately one hour per participant

Interviewees:

- Primary research participant
- Parent(s)/Care Provider
- Other: Special education teacher, employer, case manager

Data collection method:

- Digital recording device and hand notes

Observations & informal interviews

Schedule:

- Two 4-5 hour weekday sessions
- Two 4-5 hour weekend sessions

Data collection method:

- Field notes
- Digital recording device

Follow-up interviews

Schedule:

- Approximately one hour per participant

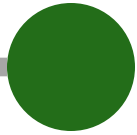
Interviewees:

- Primary research participant
- If necessary: Parent(s)/Care Provider, special education teacher, employer, and/or case manager

Data collection method:

- Digital recording device and hand notes

STUDY PROTOCOL



Data analysis & reporting

Process:

- Transcription
- Content analysis
- Open/axial/selective coding

PRESENTATION DESIGN

Interactive publication

Be well-prepared and professional

Test run