



RESEARCHABLE QUESTION

Institutional Data Management

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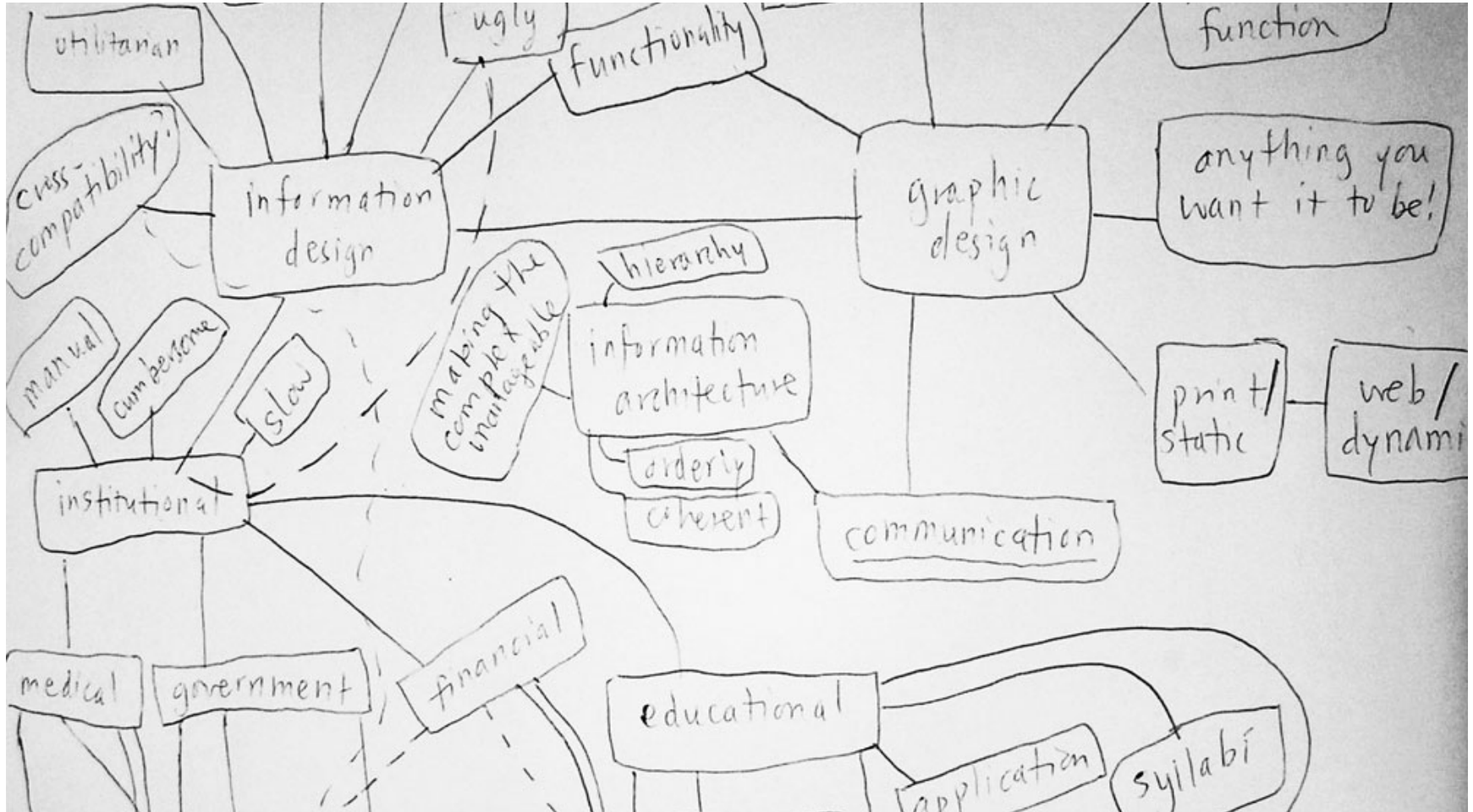
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Institutional Data Management

“Perhaps because I am the kind of person who feels lost when the field is wide open, I am interested in situations where there are a lot of restrictions... I think there's a lot of work that could be done to make record-keeping simpler, faster and more beautiful.”

EXCERPT FROM MY MINI-ESSAY

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FROM MY MIND MAP

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Abstract

I'm interested in improving institutional record-keeping, data management and productivity.

Institutions are:

- educational
- governmental
- medical

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Why?

- Functionality
- Benefits
- Saves time, money, effort, stress
- Bad design has consequences
- Utilitarian design neglected
- Lack of resources
- Compatibility

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Case Study Immunization Forms

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agencies as needed.

Student Signature: _____ **Date:** _____

CPR Certification: _____ **Expiration Date:** _____
(Attach a Xerox copy of both sides of your card.)

Tuberculosis Screening: Two step PPD testing is required by our clinical agencies. The two PPDs must be within one year of each other.

Date initial PPD planted: _____ Date read: _____ Result: _____ mm
Date second PPD planted: _____ Date read: _____ Result: _____ mm

History of positive PPD; Date: _____
If PPD is positive:
Submit documentation of adequate chemotherapy for TB or
a negative chest x-ray Date: _____

PPD contraindicated: _____ (explain)

MMR (Measles, Mumps & Rubella vaccine) 2 doses are required: Date #1: _____ Date #2: _____

If the MMR vaccine was not received, please fill out the following.

Rubella

Rubella immunization, Date: _____, OR
Serologic evidence of acquired immunity, Date: _____, Results: _____ OR
Contraindication to immunization: _____ (explain)

Measles (Rubeola)

Documentation of two (2) doses of live-virus measles vaccine (for persons born after 12/31/56); one dose required if born on or before 12/31/56); Date #1: _____ and Date #2: _____ OR
Serologic evidence of acquired immunity, Date: _____, Results: _____ OR
Proof of physician documented illness, Date: _____, OR
Contraindication to immunization: _____ (explain)

Rhode Island


GOOD

— Some text variation

BAD

- Unstructured, gridless
- Too-short lines
- Only three vaccinations
- Complex terminology
- No allergy information

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IMMUNIZATION RECORD

Comprobante de Inmunización

Name
nombre **Jane Doe**

Birthdate
fecha de nacimiento **10/15/2003** **Sex**
sexo **F**

Allergies
alergias

Vaccine Reactions
reacciones a la vacuna

History of Chickenpox **Date Printed**
historia de varicela **No** **9/1/2004**

RETAIN THIS DOCUMENT - CONSERVE ESTE DOCUMENTO

VACCINE <i>vacuna</i>	DATE GIVEN <i>fecha de vacunación</i>	DOCTOR OFFICE OR CLINIC <i>médico o clínica</i>	DATE NEXT DOSE DUE <i>próxima vacuna</i>
POLIO (1) IPV	12/20/2003	TRANSCRIBED	
(2) IPV	03/04/2004	TRANSCRIBED	
(3) DTaPHBIP	05/29/2004	Main Street Clinic	10/15/2007
DTP (1) DTaP	12/20/2003	TRANSCRIBED	
(2) DTaP	03/04/2004	TRANSCRIBED	
(3) DTaPHBIP	05/29/2004	Main Street Clinic	02/28/2005
HIB (1) HIB-HBV	12/20/2003	TRANSCRIBED	
(2) HIB-HBV	03/04/2004	TRANSCRIBED	10/15/2004

DTP = diphtheria, tetanus, pertussis (whooping cough) difteria, tétano y tos ferina **MMR** = measles, mumps, rubella sarampión, paperas y sarampión alemán **VZV** = varicella (chickenpox) **Hib** = Hib meningitis (Haemophilus influenzae B) meningitis Hib **HEPB** = hepatitis B () indicates a dose number

SKIN TESTS
Pruebas en la Piel

* If required for school entry, must be Mantoux unless exception granted by school.
Film date: ___/___/___ Impression: normal abnormal
Person is free of communicable tuberculosis: yes no
Signature/Agency: _____

Parents: Your child must meet California's immunization requirements to be in school.
Keep this Record as proof of immunization. Padres: Su niño debe cumplir de vacunas para asistir a la escuela. Mantenga este Comprobante; lo necesita para la escuela.

California

GOOD

- Features Spanish
- Explains abbreviations
- Grid structure

BAD

- Too crowded
- Wastes space at top left
- “Transcribed”?

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Childhood immunization record

My child's name is My child's birthday is
 My child's doctor is The doctor's phone number is

Age	Immunization	Dose	Notes	Date given
Birth	Hepatitis B (HepB)	1 of 3		
2 months	Hepatitis B (HepB)	2 of 3	Can be given from 1 to 2 months of age	
	DTaP	1 of 5		
	Hib (<i>Haemophilus influenzae</i> type b)	1 of 4		
	Polio (IPV)	1 of 4		
	Pneumococcal (PCV)	1 of 4		
4 months	Rotavirus	1 of 2 or 3		
	DTaP	2 of 5		
	Hib	2 of 4		
	Polio (IPV)	2 of 4		
	Pneumococcal (PCV)	2 of 4		
6 months	Rotavirus	2 of 2 or 3		
	Hepatitis B (HepB)	3 of 3	Can be given from 6 to 18 months of age	
	DTaP	3 of 5		
	Hib	3 of 4		
	Polio (IPV)	3 of 4	Can be given from 6 to 18 months of age	
	Pneumococcal (PCV)	3 of 4		
	Flu (influenza)	Yearly	One dose each year through 18 years of age. Children younger than 9 years old getting the flu shot for the first time should get 2 doses, given at least 1 month apart.	
12 months	Rotavirus	3 of 3, if needed		
	Hib	4 of 4	Can be given from 12 to 15 months of age	

California

GOOD

- Grid and shading
- Clean layout

BAD

- Confusing dose column
- Notes column awkward
- No allergy information

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IMMUNIZATION HISTORY: Fill in the MO/DAY/YR information for children 2 months of age and older. If child received a combined shot (like Hib-hep B), write the date in all the boxes that apply. Vaccine doses that are circled (○) are not required by law.

Diphtheria, Tetanus, Pertussis (DTP)	Vaccine	Dose	MO	DAY	YR
• 3 doses during 1st year (at 2-month intervals) • 4 th dose at 12-18 months • 5 th dose at 4-6 years or at school entrance Indicate vaccine type: DTaP or DT.		1			
		2			
		3			
		4			
		⑤			
Polio (IPV and/or OPV)	Vaccine	Dose	MO	DAY	YR
• 3 doses at 2-18 months • 4 th dose at 4-6 years or at school entrance		1			
		2			
		3			
		4			
		④			
Measles, Mumps, Rubella (MMR)	Vaccine	Dose	MO	DAY	YR
• Required for children 15 months and older • Must be given on or after 1 st birthday • 2 nd dose at 4-6 years		1			
		②			
Haemophilus influenzae type b (Hib)	Vaccine	Dose	MO	DAY	YR
• 3-4 doses for children at 2-15 months • 1 dose ≥12 months required (suspended 2008*) • 1 dose for previously unvaccinated children 15-59 months • Not indicated for children 5 years or older		1			
		2			
		③			
		④			
		④			
Varicella (Chickenpox)	Vaccine	Dose	MO	DAY	YR
• 1 st dose between 12-18 months • 2 nd dose at 4-6 years or at school entrance (required for kindergarten)		1			
		②			
Disease Date:					
Pneumococcal Conjugate Vaccine (PCV)	Vaccine	Dose	MO	DAY	YR
• 2-4 doses for children 2-24 months • Consider for unvaccinated children at 24-59 months in child care • Not indicated for children 5 years or older		1			
		2			
		3			
		4			
Hepatitis B (Hep B)—required for kindergarten	Vaccine	Dose	MO	DAY	YR
• 3 doses between birth and 18 months		①			
		②			
		③			
Rotavirus	Vaccine	Dose	MO	DAY	YR
• 2-3 doses between 2 and 6 months		①			
		②			
		③			
Influenza (LAIV or TIV)	Vaccine	Dose	MO	DAY	YR
• 1 dose annually for children ≥6 months (1 st time influenza immunization requires 2 doses)		①			
		②			
Hepatitis A (Hep A)	Vaccine	Dose	MO	DAY	YR
• 2 doses separated by 6 months for children 12-24 months		①			
		②			

* Suspended due to vaccine shortage 2008

Child Care Immunization Record

Must be on file before a child attends child care.

Name: _____
 Birthdate: _____ Date of Enrollment: _____

SIGNATURE(S)

A. For children who are 15 months or older and who have received all the immunizations required by law for child care:
 I certify that the above-named child is at least 15 months of age and has completed the immunizations which are required by law for child care.
 Signature of Parent/Guardian or Physician/Public Clinic _____ Date _____

B. For children who are younger than 15 months or who have not received all the immunizations required by law for child care:
 I certify that the above-named child has received the immunizations indicated to the left and:
 will complete the immunizations required by law for child care within 18 months; and/or
 immunization is not indicated for medical reasons or laboratory confirmation of adequate immunity exists for the following immunization(s)
 and/or
 the parent/guardian is opposed to certain vaccine(s) as indicated by them in Section C below.
 Signature of Physician or Public Clinic _____ Date _____

C. If the parent/guardian conscientiously opposes immunizations:
 I understand that not following vaccination recommendations may endanger the health or life of my child and others that my child might come in contact with.
 I hereby certify by notarization that:
 I am opposed to all immunizations.
 I am opposed to only the vaccines indicated and have had my physician or health care provider complete Section B above. Vaccine(s) I oppose: _____
 Signature of Parent/Guardian _____ Date _____
 Subscribed and sworn to before me this _____ day of _____, 20____
 Signature of Notary Public (A copy of the notarized statement will be forwarded to the commissioner of health.)

 Notary Public Stamp
 Minnesota Immunization Program: 651-201-5503 or 1-800-657-3970 (MDH, 3/2009)

Minnesota

GOOD

- Supplies all information
- Explains each section
- Indicates optional doses
- Clear instructions at right
- Accommodates notary

BAD

- No allergy information

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Good stuff to keep

Structure, text hierarchy, explanation,
grid, personal and allergy information

Bad stuff to get rid of

Wasted space, crowding, awkward and
confusing layouts

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Where do we go from here?

- Redesign of current forms
- Reduction of duplicate forms
- Creation of new, universal forms
- Electronic database application

RESEARCHABLE QUESTION

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Preliminary Resources

KIM BAER AND JILL VACARRA

Information Design Workbook

ROBERT BARNETT

Forms For People: Designing Forms That People Can Use

KATHERINE MOGHADAS

Tools For An Efficient Medical Practice

EDWARD TUFT

Envisioning Information

KEN AND JENNIFER VISOCKY O'GRADY

The Information Design Handbook

LUKE WROBLEWSKI

Web Application Form Design

LUKE WROBLEWSKI

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