
Process and Situated Practice: The Unofficial Rules of Childcare Information Management



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Overview

- Past work
- Setting
- Method
- Information
- Codes
- Discussion

Past Work

- This is part of an ongoing project
- Study personal information management practice
 - Childcare
 - Medical practice



Research Questions

- How information is managed in a childcare
- What are the policies and practices for information management

Settings

■ 4 childcare centers

	P1	P3	P4	P6
Hours of operation	7:15 am – 4:45 pm	6 am – 6 pm	7:30 am – 5:30 pm	7 am – 5:45 pm
Enrollment Size	200	200	43	100
Age	6 wk – 12 yr	6 wk – 12 yr	15 mo – 5 yr	6 wk – 12 yr
Staff Size	30	45	15	22
School Van	Yes	Yes	Yes	Yes

■ Information about children, parent, staff



Participants

■ Directors

	P1	P3	P4	P6
Title	Director	Director	Director	Director
Gender (director)	Female	Female	Female	Female
Experience (years)	16	17	20	15

- Childcare as a sacred duty
- Childcare as a business

Method (The Small Picture)

- Data Collection
- Data Analysis

	Task
Data Collection	Data review
	Protocols
	Interview
	Observation
Data Analysis	Transcribing
	Coding
	Diagramming and Memo-writing

Method: Data Collection

	Task	Description	Effort and outcome
Data Collection	• Data review	<input type="checkbox"/> Read through existing transcripts and report	<input type="checkbox"/> 20 page report, 4 interview transcripts
	• Protocols	<input type="checkbox"/> Guidelines for interviews and observations	<input type="checkbox"/> 3-page interview protocol <input type="checkbox"/> Interview and observation strategies
	• Interview	<input type="checkbox"/> Asked questions <input type="checkbox"/> Audio recording	<input type="checkbox"/> 4 interviews, each 1 hour long
	• Observati on	<input type="checkbox"/> Shadowed directors <input type="checkbox"/> Audio recorded 6 observations	<input type="checkbox"/> 12 observations, <input type="checkbox"/> More than 30 hours in the field

Method: Data Analysis

	Task	Description	Effort and outcome
Data Analysis	Transcribing	<ul style="list-style-type: none"><input type="checkbox"/> Typed up questions and answers<input type="checkbox"/> Typed up and expanded field notes<ul style="list-style-type: none">• Descriptions• Quotes,• Pictures• diagrams	<ul style="list-style-type: none"><input type="checkbox"/> 3 interviews,<ul style="list-style-type: none">• total of 44 pages<input type="checkbox"/> 9 observation field notes,<ul style="list-style-type: none">• total of 167 pages
	Coding	Identified, named, clustered, and expanded emerging themes in data	<ul style="list-style-type: none"><input type="checkbox"/> Shared ~15 emails, 3 meetings totaling over 10 hours<input type="checkbox"/> Resulted in 32 codes<ul style="list-style-type: none">• Definitions
	Diagramming and Memo-writing	<ul style="list-style-type: none"><input type="checkbox"/> Clustered relevant codes and drew out relationships<input type="checkbox"/> Wrote detailed memos with descriptions, examples, and relationships for three main codes	<ul style="list-style-type: none"><input type="checkbox"/> Sketched and digitized one cluster diagram<input type="checkbox"/> Wrote 3 memos, each 3-5 pages in length

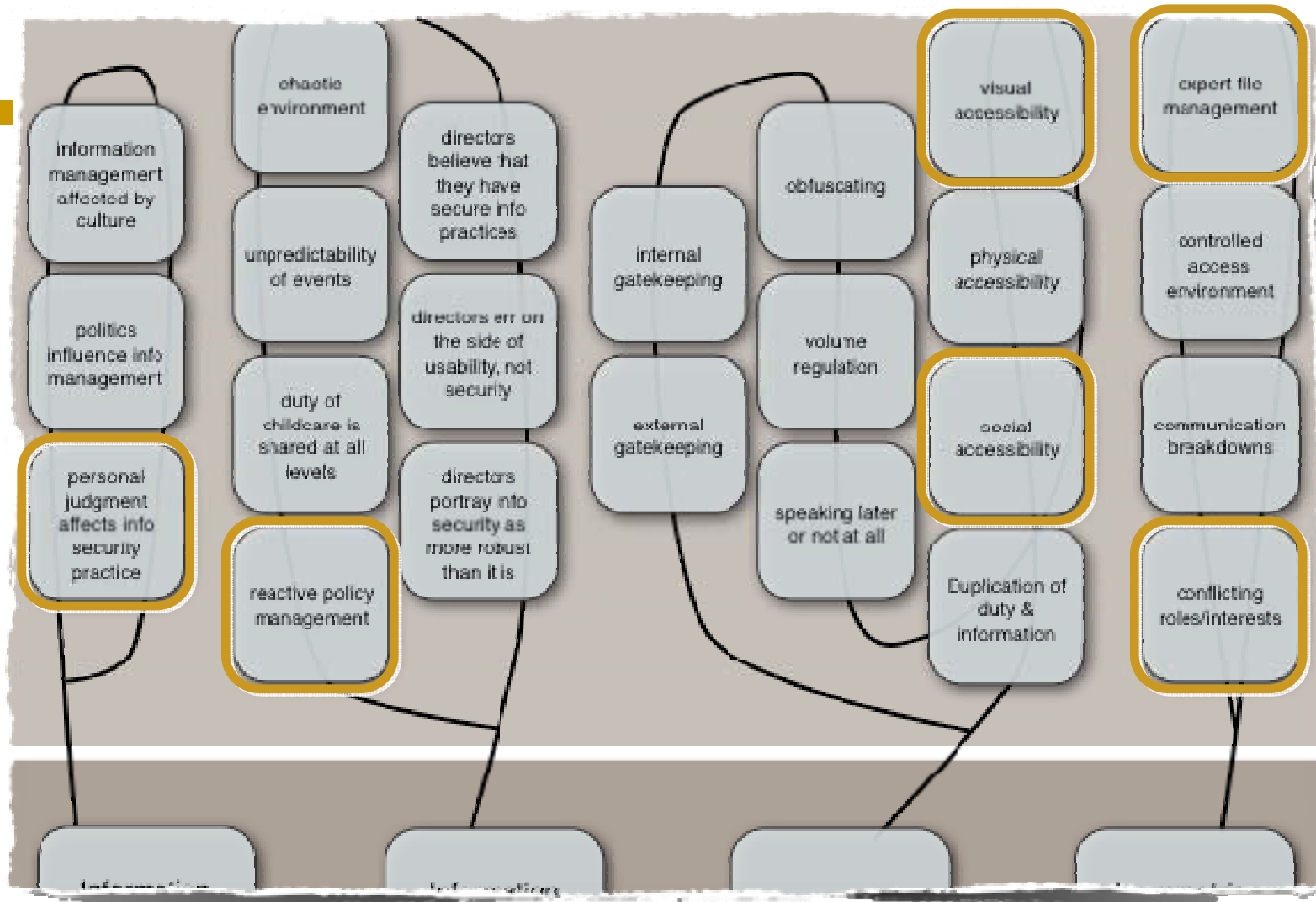
Method (The Whole Picture)

	Task	Description	Why	Effort and outcome
Data Collection	Data review	<input type="checkbox"/> Read through existing transcripts and report	<input type="checkbox"/> To familiarize researchers with policies <input type="checkbox"/> To establish rapport / continuity	<input type="checkbox"/> Each researcher read a 20 page report, 4 interview transcripts
	Protocols	<input type="checkbox"/> Guidelines for interviews and observations	<input type="checkbox"/> To prepare questions, their wording, and ordering <input type="checkbox"/> To make ensure valuable data collection	<input type="checkbox"/> Collaboratively generated a 3-page interview protocol <input type="checkbox"/> Devised comprehensive interview and observation strategies
	Interview	<input type="checkbox"/> Asked questions according to semi-structured protocol <input type="checkbox"/> Audio recorded 3 interviews	<input type="checkbox"/> To learn the “official story” of childcare activity <input type="checkbox"/> To create Rapport <input type="checkbox"/> To help put future observations in context	<input type="checkbox"/> Conducted 4 interviews, each 1 hour long
	Observation	<input type="checkbox"/> Shadowed directors to see how they act in real-time work environment <input type="checkbox"/> Audio recorded 6 observations	<input type="checkbox"/> To learn the “unofficial story” of childcare activity <input type="checkbox"/> To identify situations not mentioned in interviews <input type="checkbox"/> To gain a sense of the environment	<input type="checkbox"/> Conducted 12 observations, more than 30 total hours in the field
Data Analysis	Transcribing	<input type="checkbox"/> Typed up questions and answers to all recorded interviews <input type="checkbox"/> Typed up and expanded upon notes taken during field observations; included descriptions, quotes, pictures, and diagrams	<input type="checkbox"/> To create a primary data source for theory-building and reporting	<input type="checkbox"/> Transcribed 3 interviews, total of 44 pages <input type="checkbox"/> Transcribed 9 observation field notes, total of 167 pages
	Coding	<input type="checkbox"/> Identified, named, clustered, and expanded emergig themes in data	<input type="checkbox"/> Generated theory based on codes	<input type="checkbox"/> Shared ~15 emails, 3 meetings totaling over 10 hours <input type="checkbox"/> Resulted in 24 codes and paragraph length definitions
	Diagramming and Memo-writing	<input type="checkbox"/> Clustered relevant codes and drew out relationships <input type="checkbox"/> Wrote detailed memos with descriptions, examples, and relationships for three main codes	<input type="checkbox"/> To build a case for each main code and supporting sub-codes for higher-level theory	<input type="checkbox"/> Sketched and digitized one cluster diagram <input type="checkbox"/> Wrote 3 memos, each 3-5 pages in length

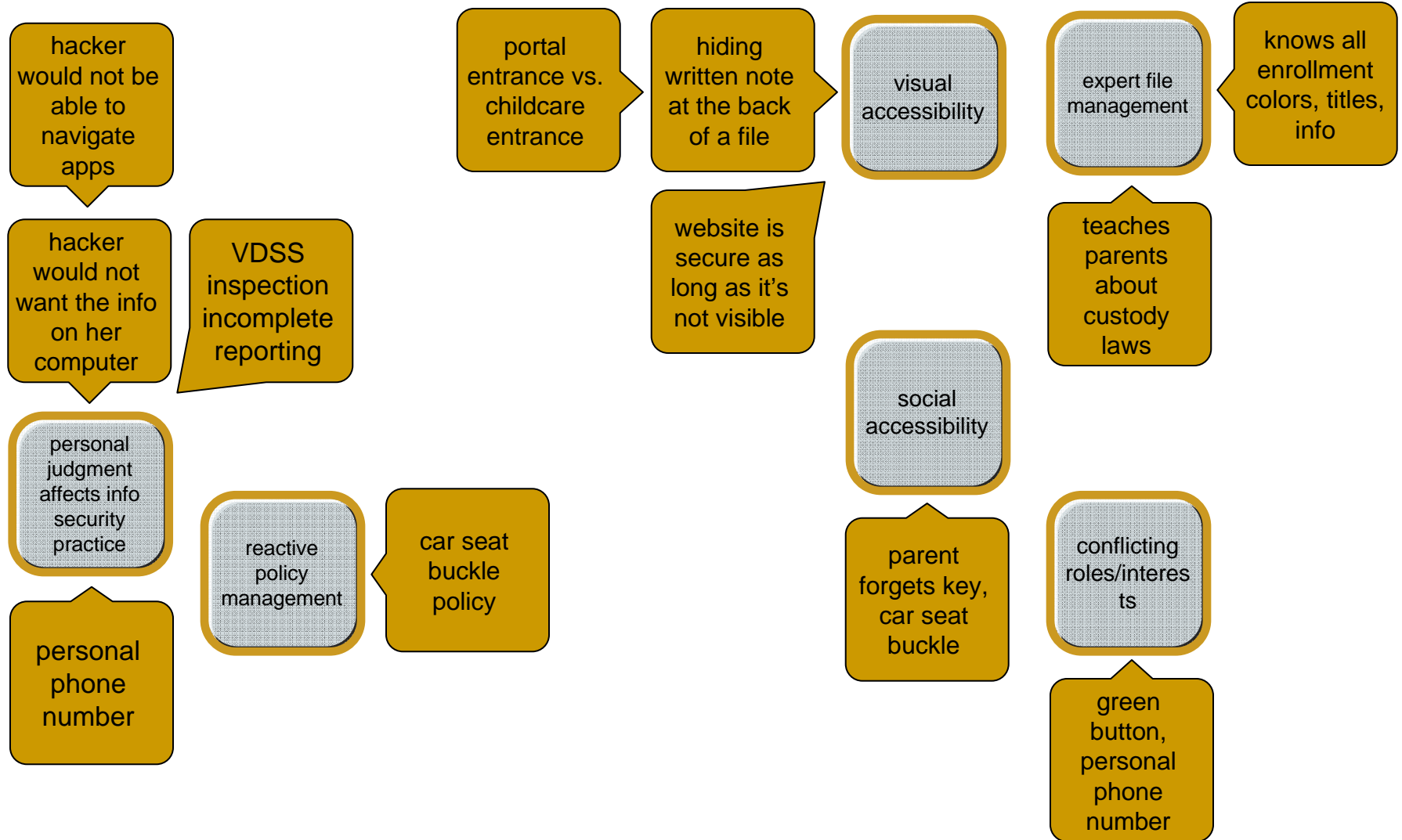
Data Collection in the Center

- Yearly
 - Registration update
- Monthly
 - DSS form, newsletter, calendar
- Biweekly
 - payroll, tuition
- Daily
 - Attendance, meal count, daily report, van sheet, accident/incident

Data: codes



Data: selected codes



Discussion

- human vs. computer information management:
 - sensibility vs. regularity
 - physical vs. digital
 - centralized vs. decentralized

Discussion: sensibility vs. regularity

- “situated action vs. deterministic computation”
- sensibility cuts both ways
 - negligence
 - practicality
- not just about preventing break-ins
- err on the side of usability == false positives

VDSS
inspection
incomplete
reporting

parent
forgets key,
car seat
buckle

the green
button,
personal
phone
number

portal
entrance vs.
childcare
entrance

Discussion: physical vs. digital

- “intuitive security mechanisms vs. unintuitive”
- intuitive media = appropriable
- unintuitive
 - ❑ mismatched metaphors
 - ❑ underestimating the enemy
 - ❑ undervaluing the goods

hiding written note at the back of a file

website is secure as long as it's not visible

hacker would not be able to navigate apps

hacker would not want the info on her computer

Discussion: centralized vs. decentralized

- “few expert info managers vs. novice masses”

- expertise

- number

- variety

knows all enrollment colors, titles, info

teaches parents about custody laws

personal phone number

- centralization = information distribution

- centralization = corrective policy distribution

car seat buckle policy

Conclusion

- people not technology
- holistic approach to info security
- no “implications,” but rich data, meta-theory
 - within US (replacement or assistive tech.)
 - outside of US (modify policies, other tech.)