Handbook of Perception and Cogntion, Vol . 14: Computational Psychology and Artificial Intelligence,

An Introduction to Human Computer Interaction

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Int ra t n w t Co put rs

Ba roun to HCI

hierarchical representation

master picture *instances* *constraints*

Dou En bart an Au nt

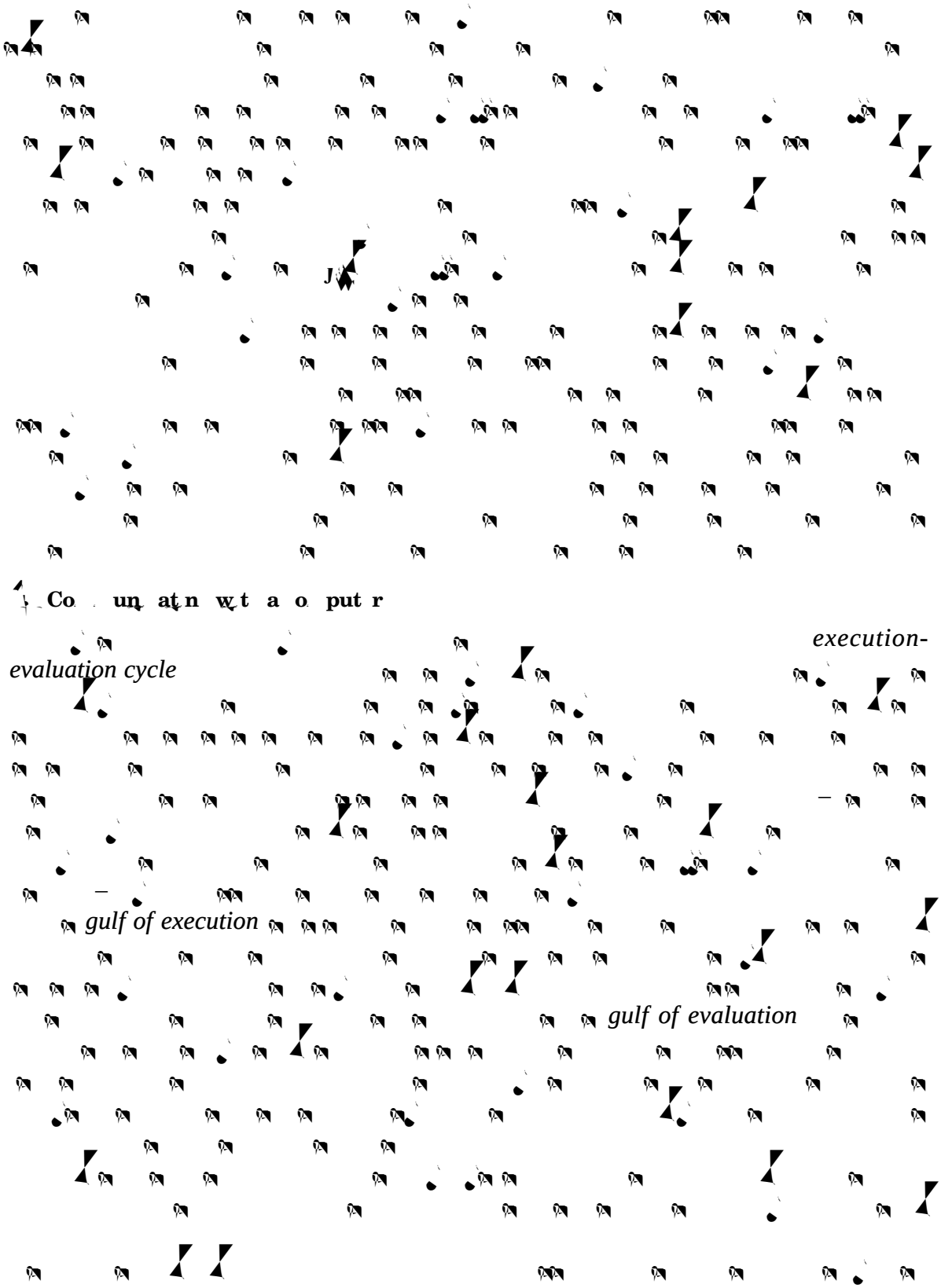
A an Kay an t Dynaboo

graphical user interface

icons

direct manipulation

Int r a s


execution-
evaluation cycle
gulf of execution
gulf of evaluation

t so o un at on

Co an n nt ract on

M nus an IM nt r, ac s

windows icons menus pointers

atura an, ua,

n nput

D r ct an pu at on

Virtual reality

App n ps o o to s n

M ory

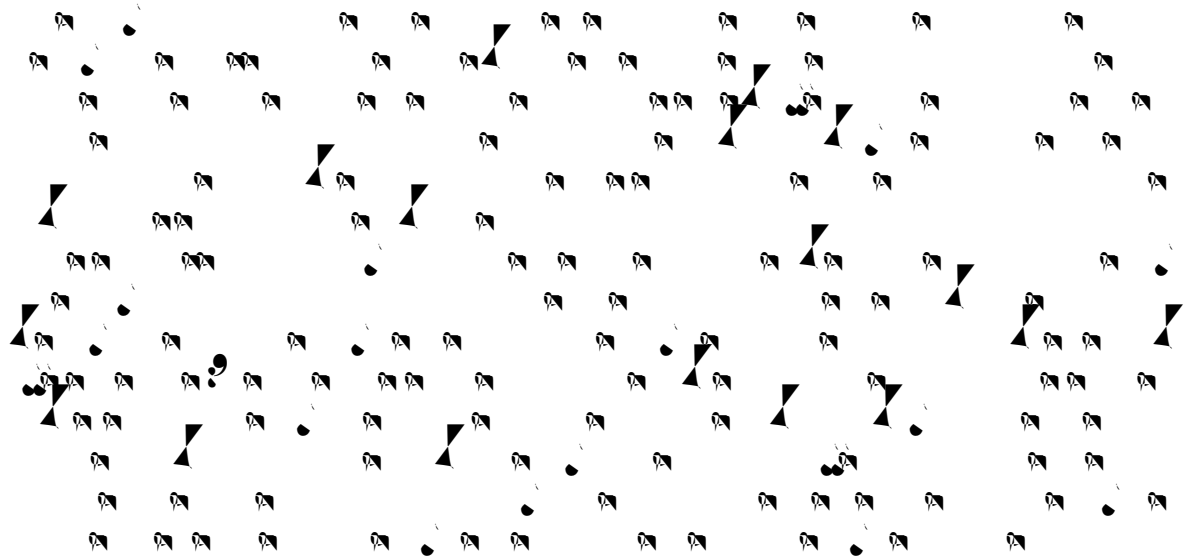
recency primacy effects chunking associativity

meaningful chunks

external representations

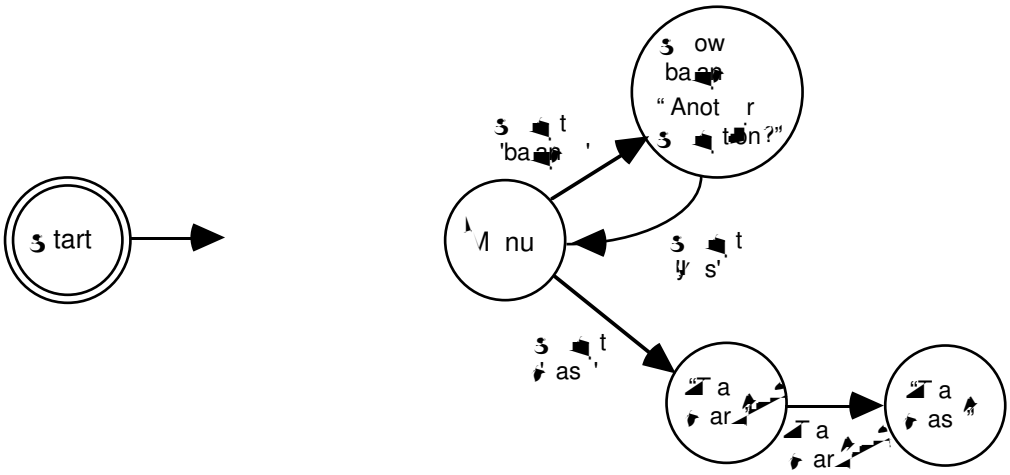
rc pt on

Visual acuity



syntactic models

semantic models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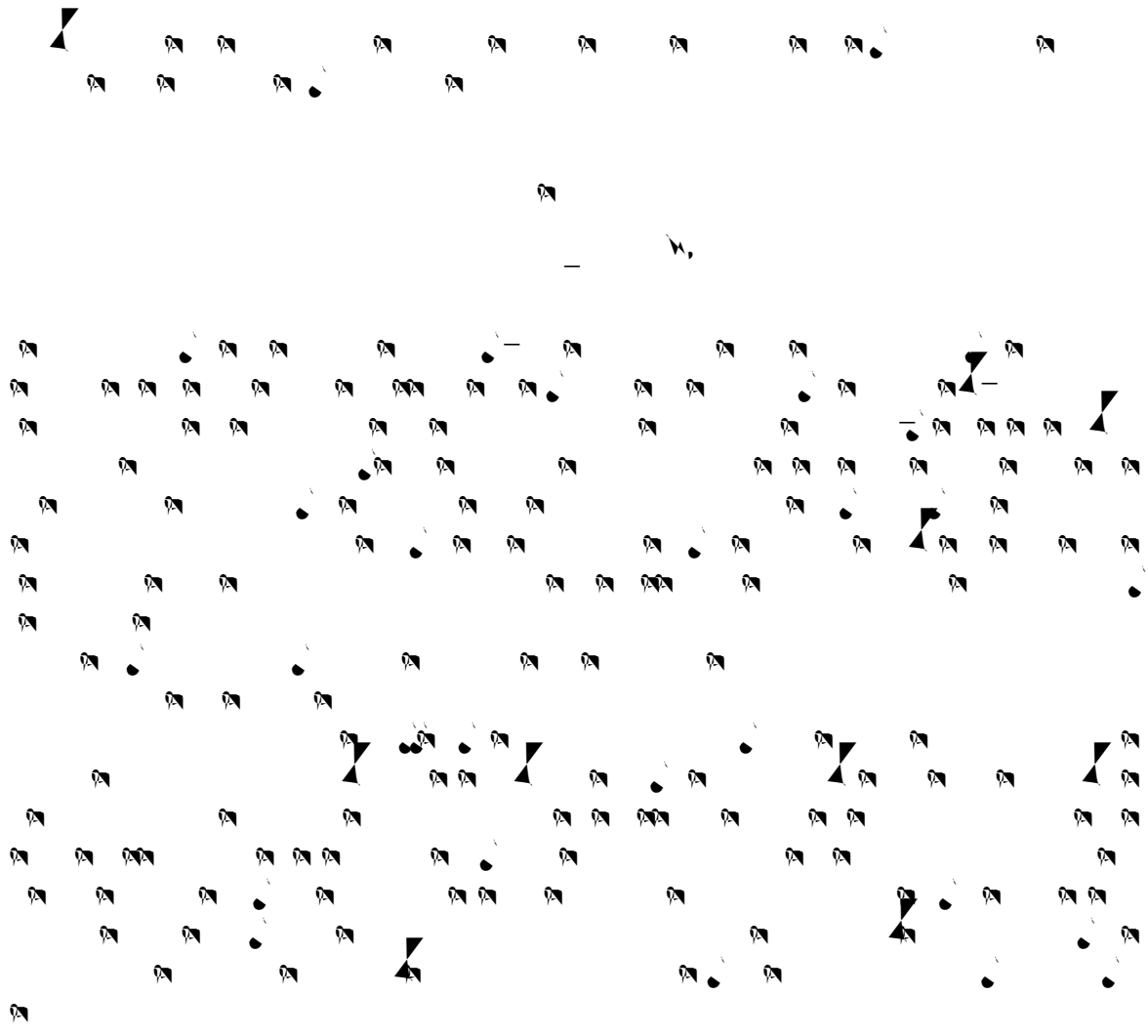


3.3 Users' Models of Computers

mental models

st v op nt

requirements analysis

system design *functional specification*

detailed design

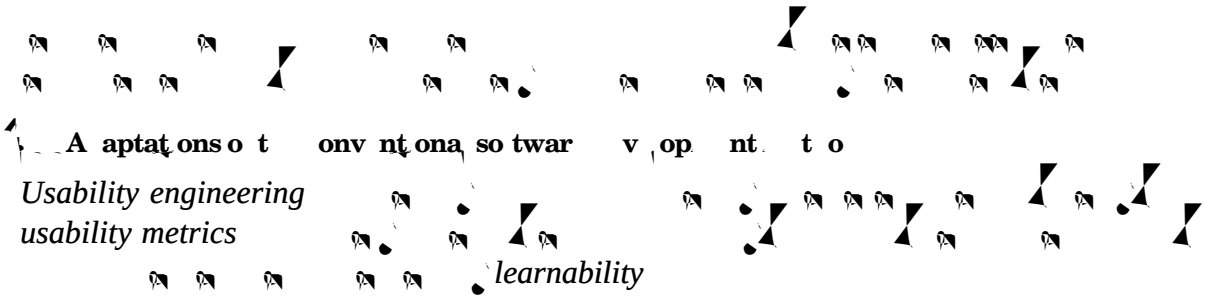
implementation

integration and testing

maintenance

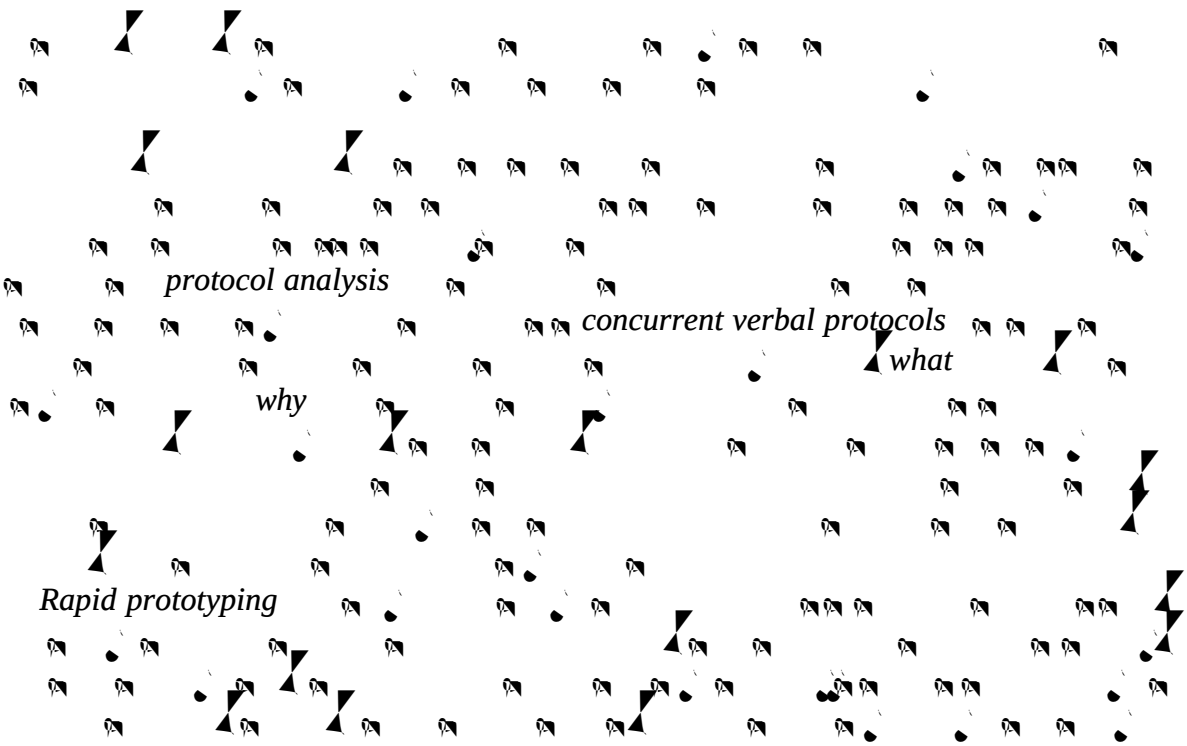
waterfall

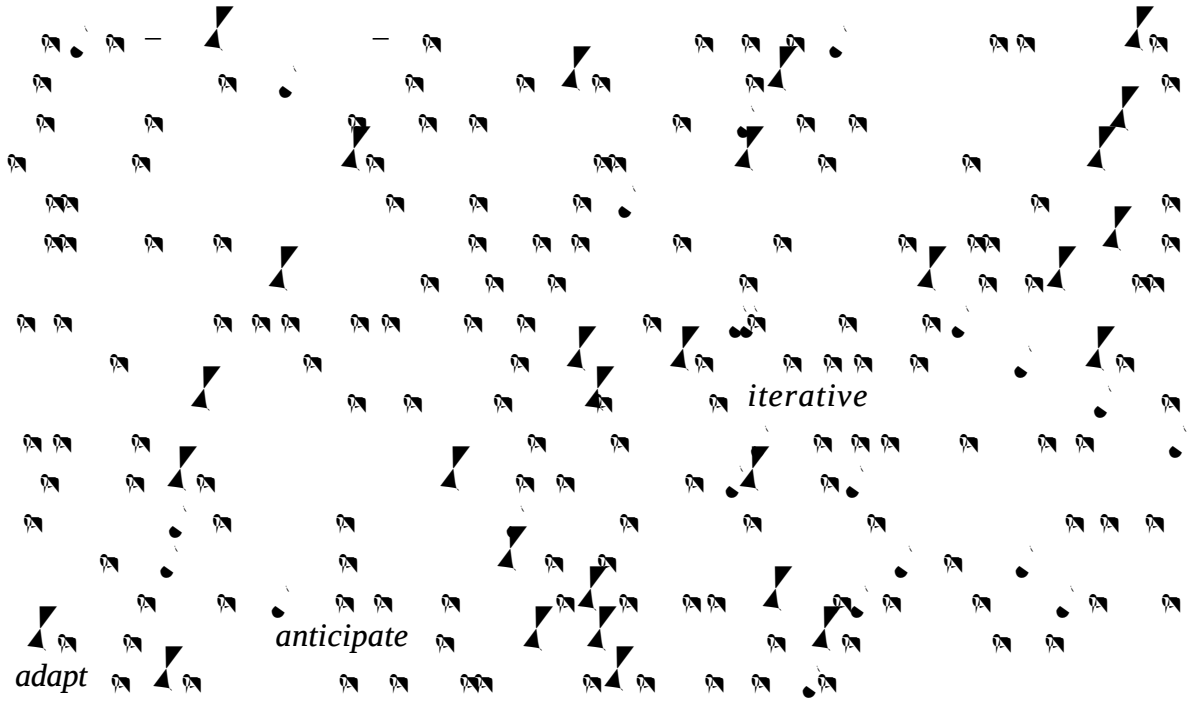
User-centred design



A aptat ons o t onv nt ona so twar v op nt t o

Usability engineering
usability metrics
learnability


protocol analysis
concurrent verbal protocols
what
why
Rapid prototyping



Eva uat on

Analytic evaluation

Expert evaluation

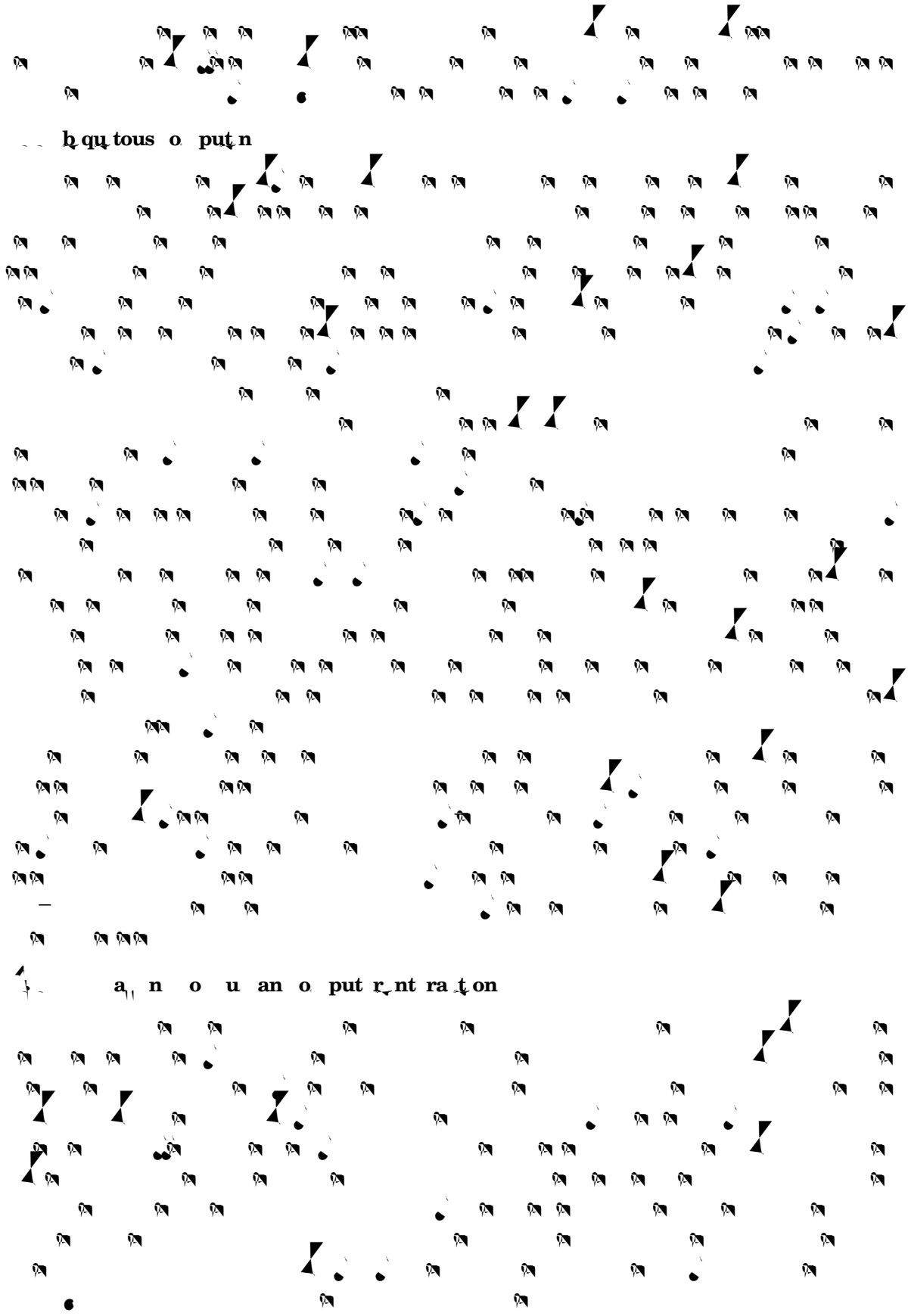
B on Hu an Co put r Int ra t on

	BATCH	TIME-SHARING	DESKTOP	NETWORK
DECADE	1 s	1 7 s	1 s	1 s
TECHNOLOGY	MEDI M CA E I EG AT I	A GE CA E I EG AT I	E Y A GE CA E	A A GE CA E
LOCATION	C M E M	E MI A M	DE K	M BI E
USERS	EX E T	CIA T	I DI ID A	G
USER STATUS	B E IE C E	DE E DE CE	I DE E DE CE	F EED
DATA	A HA ME IC	EX , E T	F , G A HIC	C , ICE
OBJECTIVE	CA C AT E	ACCE	E E T	C M M ICAT E
USER ACTIVITY	CH & T Y B M	E ME MBE & Y E I E AC	EE & I D I	K & E DE EGA
OPERATION	CE	ED T	AY	CHE T AT E
INTER-CONNECT	E I HE A	E MI A	DE K	A T
APPLICATIONS	C T M	T A DA D	GE E IC	C M E T
LANGUAGES	C B , F T A	1, BA IC	A CA , C	BJE T IE T ED

F ur Four ará s o, Co. put n ro. **(Tesler, 1991)**

Co put r upport Coop rat v or

3 Autonomous agents



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Apple Human Interface Guidelines: The Apple Desktop Interface

Readings in Human-Computer Interaction

The Psychology of Human-Computer Interaction

Communication of the ACM

Task analysis for Human-Computer Interaction

Human-Computer Interaction

Journal of Experimental Psychology

Cognitive Processes in Writing: an Interdisciplinary Approach

Theories of multi-party interaction.

ACM CHI '91

Cognitive Skills and their Acquisition

International Journal of Man-Machine Studies

Interfacing Thought: Cognitive Aspects of Human-Computer Interaction

Human-Computer Interaction

BYTE

Psychological Review

Human Problem Solving

User Centred System Design