

FANTICS, Scope Draft
18-19 July [Printed 22 July]
12 or 1 AM (all upper case)

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GENERAL RESIDENT DISPATCHER FOR SCOPE

FOLLOUT FOR PRINT/PUNCH

THIS IS DATA SET "TED"

PRINT DATA SET:

DATE OF THIS ROLLOUT: FRIDAY-SATURDAY 18-19 JULY 1969, 4

NAME OF CONTENTS: FANTICS, A BOOK DRAFT.

DESCRIPTION OF WORK: ADDITIONS AT THE ADDITION AREA, REARRANGEMENTS.

WORK SYSTEMS: OUTLINE PARTS BEING PUT BETWEEN SLASHES. PARAGRAPHS CONTAINING NEW WRITING DIRECT INTO DRAFT BEING PUT BEHIND THREE AMPERSANDS, WHICH WILL LATER BE DELETED. A NEW ZONE, CALLED HOLDS, HAS BEEN CREATED.

AMPERSANDS DELETED FROM LAST NIGHT'S WORK.

REMARKS: WHAT THE HELL, LET'S WRITE A BOOK.

SYSTEMS NOTE. THIS IS THE COPY BUFFER. EVERYTHING HERE HAS BEEN
COPIED FROM AREA "LIVNPT". NOTE THAT THERE ARE NO "CHAPTERS." WHEN
SECTIONS GET COMBINED INTO CHAPTERS IS THE LAST THING ON MY MIND.

----- INCOME-TAX HELP SYSTEM (ALTERNATIVES)
----- EXAMPLE: FLIPTYCH ----- ((1:48 AM 10 JULY)) ----- ((8:20 PM FRI 11
JULY)) ((CLOSED 10:48 PM)) ----- ((1:15 AM 11-12 JULY))
----- ((3:10 AM 11-12 JULY))

((INSERTIONS THURSDAY-FRIDAY 17-18 JULY 1969, STARTING 12:30 AM))
((12:45 AM 17-18 JULY)) ((STARTED 3:20 AM, SAME NIGHT))

((FIN 3:30))

((MANUSCRIPT IS SUPPOSED TO BEGIN HERE))

/INTRODUCTION XXX DERIVATION OF TERM "FANTICS": TWO USEFUL ROOTS, "FANEIN," TO SHOW, AND "FANTASTEIN," TO PRESENT TO THE MIND OR EYE. THE LATTER WOULD CLEARLY, FROM ITS MEANING, BE THE PREFERABLE ROOT. HOWEVER, THEN THE WORD WOULD BE "FANTASTICS," WHICH WOULD HAVE RATHER THE WRONG MEANING. IT WOULD ALSO TAKE AWAY THE SENSE: HERE I CAN SPEAK OF "A FANTIC SYSTEM" AND MAKE IT MEAN SOMETHING, WHEREAS TO CALL IT A "FANTASTIC SYSTEM," THOUGH PROBABLY TRUE, WOULD CLOUD THE ISSUE AS WELL AS RAISE THE PITCH OF DISCUSSION UNCOMFORTABLY./

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WE ARE CONFRONTED TODAY WITH A SUPPOSED EXPLOSION OF INFORMATION, INFORMATION SYSTEMS AND NEW MEDIA. WHAT THEY ARE, AND WHERE THEY ARE GOING, IS A MATTER OF CONSIDERABLE EXCITEMENT AND SPECULATION. THIS BOOK OFFERS A RATHER DIFFERENT POINT OF VIEW.

/"THE INFORMATION EXPLOSION" "THE KNOWLEDGE INDUSTRY" SYNNOETICS CYBER-CULTURE MEDIA BARRAGES MEDIA MESSAGES./

/SOOPER PREDICTION WHOPPEROO (SHORT & SUMMARY) MEDIA, ENVIRONMENTS, IDEAS, COMMUNICATION, FEEL./

SUMMARY OF MY GENERAL PREDICTION

THIS BOOK SEEMS TO MAKE SEVERAL POINTS. THE BASIC POINT IS THAT THERE EXISTS A NEW ART AND SCIENCE, FANTICS, AND THAT ATTEMPTS TO UNDERSTAND IT FROM MORE SPECIALIZED POINTS OF VIEW HAVE FAILED SO FAR. THIS FIELD OF FANTICS EMBRACES THE COMMUNICATION OF IDEAS, AND THE NECESSARY STRUCTURING OF MEDIA, ENVIRONMENTS AND FEEL. THIS TOPIC IS UNIFIED, RATHER THAN DIVERSE. THE DIFFERENT KINDS OF MEDIA AND ENVIRONMENTS POSSIBLE ARE MANY: BUT THE CONSIDERATIONS UPON WHICH THEY MUST BE BASED ARE UNIVERSAL, AND DO NOT APPROPRIATELY FIT ANY TECHNICAL DISCIPLINE. WHAT IS MORE, THIS BOOK SEEKS TO MAKE CERTAIN PREDICTIONS ABOUT THE FUTURE. WE ARE ENTERING WHAT I WOULD CALL A FANTIC WORLD, IN WHICH OUR MEDIA CAN BE AS GRACIOUS, BEAUTIFUL AND EXCITING AS ANY PREVIOUSLY KNOWN TO HUMAN CULTURE, OR THEY CAN BE CRUDE, UNSATISFYING AND SUBTLY AWFUL. I ADVOCATE THE FORMER. MOREOVER, I THINK THE FORMER WILL COME TRUE. I THINK THAT WHEN IT IS GENERALLY REALIZED WHAT IS POSSIBLE, THE WORLD WILL CHANGE DRAMATICALLY IN CERTAIN SPECIFIC AND IMPORTANT WAYS. THIS WILL INVOLVE UPHEAVALS IN EDUCATION, ENTERTAINMENT, AND HOME AND BUSINESS LIFE, AS WILL PRESENTLY BE DESCRIBED.

THE GENERAL PREDICTION IS APPROXIMATELY THIS, AND I WISH TO STATE IT AS BALDLY AS POSSIBLE TO AVOID MISUNDERSTANDING. WITHIN A FEW YEARS--CERTAINLY LESS THAN TWENTY--THE WRITTEN WORD WILL NO LONGER BE GENERALLY PRINTED, BUT WILL BE STORED IN COMPUTERS AND READ FROM COMPUTER DISPLAYS IN OUR HOMES, OFFICES AND EVERYWHERE.

THE WRITTEN MEDIA OF OUR FORMER CULTURE WILL BE REPLACED, ENLARGED AND IMPROVED BY A NEW MEDIUM, WHICH I CALL HYPERTEXT. HYPERTEXT WILL BE TO ORDINARY WRITING AS FLYING IS TO WALKING.

THE ILLUSTRATIONS OF HYPERTEXTS WILL BE HYPERGRAMS, PICTURES WHICH THE USER CAN MAKE TO REACT OR PERFORM. THE OTHER ARTIFACTS OF OUR CULTURE, INCLUDING SUCH THINGS AS PAINTING, SCULPTURE AND ARCHITECTURE, WILL COME ALSO TO BE STORED IN COMPUTERS FOR OUR ENJOYMENT.

MOTION PICTURES AND MUSIC WILL ALSO BE CREATED BY COMPOSERS AND ANIMATORS, AND THEIR BASIC PLANS STORED IN COMPUTER LIBRARIES WHERE THEY MAY BE GOTTEN AT AND RE-PERFORMED READILY. FOR ALL CREATIVE PURPOSES, COMPUTER-BASED "CREATIVITY SYSTEMS" WILL BE THE WORKING CONSOLES AT WHICH THE ARTIST AND WRITER MAY WORK MORE EFFECTIVELY THAN EVER BEFORE.

/ OI: DIGITAL CONTROL, COMP DISP., DIG. LIBRARIES THE THREE BASICS COMPUTERS CAN DO FOR SHOWING: STORAGE, PERFORMANCE, CONTROL (DEF. ORDER?) INFO FACILITIES SUPPLEMENTING CREATIVE FNVTs/

THESE DEVELOPMENTS WILL COME ABOUT FOR SEVERAL REASONS. THE FIRST IS THAT COMPUTERS NATURALLY FORM THE BEST DEVICES FOR CONTROLLING OTHER MACHINES, AND MAKING THEM MORE RESPONSIVE AND FLEXIBLE THAN THEY EVER COULD BE OTHERWISE.

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THE SECOND IS THAT COMPUTERS CAN DIRECTLY PERFORM VARIOUS PRESENTATIONS FOR US: CAUSING WORDS TO APPEAR ON SCREENS, MAKING DIAGRAMS ON SCREENS, EVEN MAKING MUSIC AND MOTION PICTURES IN FULL COLOR.

THE THIRD IS THAT THE STRUCTURED INFORMATION FOR THESE ACTIVITIES MAY BE STORED WITH GREAT SAFETY AND ACCESSIBILITY ON COMPUTER EQUIPMENT, AND AUTOMATICALLY FORWARDED TO PEOPLE WHO WANT TO USE IT.

A FOURTH REASON IS THAT COMPUTERS, THROUGH VARIOUS HELPFUL CAPACITIES, CAN STAND BY AND ANSWER CERTAIN KINDS OF QUESTIONS AND WORK OUT CERTAIN KINDS OF CALCULATIONS FOR US.

A FIFTH REASON IS THAT COMPUTER STORAGE MAKES POSSIBLE A RICHNESS, SUBTLETY AND COMPLEXITY OF STORED INFORMATION AND IDEAS WHICH IS BEYOND ANYTHING THE WORLD HAS PREVIOUSLY KNOWN.

ON THE FACE OF IT MANY PEOPLE WILL NOT FIND THIS AN ATTRACTIVE IDEA. FOR VARIOUS REASONS, INCLUDING STUPIDITY, COMPUTER MANUFACTURERS AND ENTHUSIASTS HAVE STIRRED UP THE BROADEST POSSIBLE MISUNDERSTANDING OF WHAT COMPUTERS ARE AND DO, STIRRING UP FEELINGS OF DISTASTE AND APPREHENSION APPROACHING REVULSION ON THE PART OF MANY. IN THIS BOOK, THEN, I WILL ATTEMPT TO EXPLAIN WHY COMPUTERS CAN BE OF THE GREATEST POSSIBLE HELP IN MAN'S SOFTEST AND WARMEST OCCUPATIONS, AND WHY THEY SHOULD AND WILL BE WELCOMED BY THE WRITER, THE ARTIST AND THE PUBLIC INTO HOME AND STUDY.

/WHAT COMPUTERS ARE (BRIEF EARLY REMARKS) 'MOST GENERAL MACHINE' THE MYTH AND TRADITION OF NARROW COMPUTER USAGE, RIGID INPUT STRUCTURES (HARDLY SOPHISTICATED)/

IT IS GENERALLY SUPPOSED BY LAYMEN, AND THEY HAVE VARIOUS REASONS FOR SUPPOSING IT, THAT COMPUTERS ARE NARROW AND RIGID. ACTUALLY, ANY NARROWNESS AND RIGIDITY OF COMPUTERS COMES FROM THE WAY THEY ARE PROGRAMMED FOR USE. IN THE EARLY DAYS IT WAS MUCH SIMPLER TO PROGRAM THEM THAT WAY, AND THIS NARROWNESS HAS PERSISTED AS A TRADITION, A PART OF THE CULTURE OF THE COMPUTER WORLD.

/SECTION: THE EASE OF USE/

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/SECTION: THE FABULOUS WORLD OF COMPUTER DISPLAY. OR, "TOYS AND JEWELS"/

/MACHINES MUST NOT MAKE DECISIONS LIKE SCIENTIFIC VOTING-DISTRICTS WE MUST JOYLY WELL UNDERSTAND THE DECISIONS WITH WHICH MACHINES ARE ENTRUSTED/

/REVIEW OF HISTORY TOWARD THIS POINT, REWRITTEN IN MY TERMS. SECTION: THE FANTIC MEDIA TO 1900 SECTION: THE FANTIC MEDIA TO 1950 SECTION: THE FANTIC MEDIA TO 1969 OR 1970 FRITZ MACHLUP "TEACHING TECHNOLOGY" NELSON'S TIMETABLE CHART OF FALLING PRICES PLAIN HALFTONE SYSTEMS STATIONERY SYSTEMS THE CREATIVITY SYSTEMS OF THE PAST THE RECORD-KEEPING SYSTEMS OF THE PAST NOT GI. COMPUTERS BUT SPECIAL THE SCATTERED CONSUMPTION OF SYSTEMS IN HOMES-- NOW TO BE UNIFIED CASSETTE-CAMERA TIMETABLE FOR INTRODUCTION OF COMPUTER DISPLAYS IN HOMES/

/SECTION: HORIZONS FOR SALE SECTION: THE MYTH OF TECHNICALITY
SECTION: THE NEW-MEDIA WHIZBANG XXX EMPEROR'S CLOTHES XXX GENERAL
DEBUNK-LIST: IR, HUM.FACT., CAI, 'TOP MAN' IR 'MANAGERIAL INFORMATION
RETRIEVAL' AS A HOTCHA THING ONLY FOR THE TOP GUYS DEBUNK ALSO: DIAGNOSIS
BY COMPUTER, AUTOMATIC DICTATION, ARTIFICIAL INTELLIGENCE I DO NOT WANT TO
TALK ABOUT A WORLD IN WHICH MACHINES ENTER THE BODY, AT LEAST PROSTHETIC-
ALLY OR PHYSIOLOGICALLY OR INNERVATIVELY PATIENT RECORDS ONLINE CLERICAL
IR (ANOTHER NARROW VISION)/

NOW IS A TIME WHEN EVERYONE WITH SOME TECHNICAL UNDERSTANDING IS
PROPERLY IMPRESSED WITH THE POTENTIAL FOR NEW MEDIA TO COMMUNICATE IDEAS
AND TRAINING. BUT THIS HAS LED TO THE STRANGEST VARIETY OF PREDICTIONS,
ALL UNDER THE SAME CLOUD. THIS CLOUD, WHICH I SEE AS OBSCURING THE
SUBJECT, I WOULD REFER TO AS THE "MYTH OF TECHNICALITY." THE MYTH OF
TECHNICALITY IS THE IDEA THAT THE DEVELOPMENT OF MEDIA FOR PRESENTATION IS
A TECHNICAL JOB TO BE LEFT TO "EXPERTS." I CONSIDER THIS IDEA PERNICIOUS
AND ITS RESULTS UNFORTUNATE.

I BELIEVE, ON THE CONTRARY, THAT THE CREATION OF PRESENTATIONAL SYSTEMS
IS BECOMING A UNIFIED ART AND STUDY, IF IT HAS NOT ALWAYS BEEN; AND THAT
THE CRITERIA FOR GOOD PRESENTATIONAL SYSTEMS ARE NOT TECHNICAL IN ANY OF
THE CURRENT SENSES, OR TECHNICALLY MEASURABLE IN ANY BUT A GLOBAL SENSE,
LIKE LOVE AND WAR.

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/SECTION: NEW MEDIA COMPONENTS HOLOGRAPHY "BRANCHING" AS A WHIZBANG
ASPECT OF NEW MEDIA COMPONENTS COUPLED EVERY WHICH WAY NOW ELECTRICAL
COUPLING OF COMPONENTS CONCRETE PHYSICAL COUPLING OF COMPONENTS/

/ WHAT'S COMING IS STRUCTURED MEDIA, NOT A HODGEPODGE WHAT IS A MEDIUM?
VIABILITY OF MEDIUM IN SOCIETY CONCEPTUAL UNITY OF MEDIUM NOBODY POSSESSES
MEDIA IMPACT, AS A RULE XXX MOVIE ANALOGY TV ANALOGY BOOK ANALOGY
MCLUHAN'S ONTO IT, EVEN IF HE DOESN'T UNDERSTAND THE TECHNICALITIES.
BASIC DISAGREEMENT WITH MCLUHAN: THE GREAT DIFFERENCES AMONG ELECTRONIC
MEDIA, AND THE STUPENDOUS DIFFERENCE IT MAKES MEDIA THAT HAVE FLOPPED
PROBLEMS OF A MEDIUM CATCHING ON: MARKETING, COHERENCE, SIMPLICITY &
CONVENIENCE/

/CONVERGENT MEDIA VS. MERE ENGINEERING OPPORTUNITIES/

HEREAFTER THERE ARE NOT SLASHES, BECAUSE EVERYTHING IS OUTLINE MATERIAL.

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SECTION: POSSIBLE WORLDS OF VISION AND RESPONSE

IGNORE CLUMSINESS OF EARLY SYSTEMS. THESE WILL BE AS EASY TO USE AS TV SETS

GOOD OLD SKETCHPAD 1 SKETCHPAD 3 SUTHERLAND'S STEREO SYSTEM 3-D 'TANK'

'TRUE STRUCTURE' SYSTEMS SECTION: THE MEANING OF STRUCTURED DATA

SECTION: "COMPUTER-ASSISTED INSTRUCTION" XXX TUT-TUTORIAL SYSTEMS THE
BADS OF CAI BRICK-WALL ILLUSTRATION THE NATURE OF INTELLIGENCE AND ITS
GROWTH THE OPPOSITE AIMS OF TOP AND BOTTOM EDUCATION THE CRITICS OF THE
SCHOOLS TODAY THE INSIDE STORY ON PROG. ED.: WE HATE TO DO IT, HATE TO
STUDY IT

SECTION: WHAT EDUCATION IS ABOUT ANYWAY XXX SECTION: SLAMMED MINDS
XXX THE BIG SECRET: FREE ACCESS TO INTERESTING MATERIALS, CONVERGENT
MOTIVATIONAL ENVIRONMENT IS THE KEY

SECTION: "INFORMATION RETRIEVAL" BOOLEAN SYSTEMS: JUST THE BEGINNING
OF WHAT THE MIND NEEDS

"HUMAN FACTORS" XXX NARROW CRITERIA OF "HUMAN FACTORS" GENERALLY
IRRELEVANT NICELY UNIFIED CONTROLS CONTROLS OF SONY TC-50 CONTROL OF
ALL-TERRAIN VEHICLE HELICOPTER HANDLE AIRPLANE "SICK" XXX A CHURCH CAN BE
THOUGHT OF AS HUMAN-FACTORS DESIGNED, ANYHOW, IF YOU LET IN ENOUGH
VARIABLES

COMPUTER-CONTROLLED MEDIA SECTION: THE COMPUTER AS MEDIA CONTROLLER

"MULTI-MEDIA"

SWELL NEW PRESENTATIONAL MEDIA, ESPECIALLY ALL-AROUND-YOU SOUND, BEAU-
TIFUL PROJECTION SYSTEM AMUSEMENT PARKS AWESOME ARCHITECTURE MUSEUMS &
FAIRS SECTION: THE UNIFICATION OF SONIC AND VISUAL ARTS TODAY'S ROCK
MUSIC LIGHT SHOWS

EXAMPLE: MOVING-SCREEN LORD OF RINGS

SECTION: HYPER-FANTIC MEDIA OF VARIOUS SORTS

HYPER-COMICS

HYPER-POETRY

EXAMPLE: HYPERFILM OF WWII

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SECTION: THE COMPUTER AS PERFORMER SUPER-AUDIO MACHINE THREE-
DIMENSIONAL SCENE STRUCTURES SHIPLOFTING, AIRFRAME, AUTO DESIGN SYSTEMS

MUSIC LIBRARY TO FEED THROUGH MUSIC PERFORMANCE MACHINE

SECTION: STRUCTURED PICTURES

FSM SECTION: FANTASM-TYPE SYSTEMS DESCRIPTION OF GE FSM SYSTEM, UTAH
FSM SYSTEM, DENVER FSM SYSTEM, NELSON'S FSM SYSTEM LIBRARY OF FSM
'PERFORMANCES' LIBRARY OF FANTASM CHARACTERS

SECTION: HYPERGRAMS XXX BRAIN PROJECT

TEXT SYSTEMS AND THE TEXT FACILITY: QUEEN OF THEM ALL AND THE HOME
TEXT CONSOLE UNIVERSAL HIGH-PERFORMANCE TEXT CONSOLES

TEXT EDITING

SECTION: CONTEXT JUMPS

SECTION: AUTHOR'S SYSTEMS

SECTION: HYPERTEXT NEWS HYPERTEXT STRATEGIC INTELLIGENCE HYPERTEXT
NON-FICTION HYPERTEXT SPHERE OF INTERCONNECTEDNESS IN A LARGE-SCALE
HYPERTEXT WORK

SECTION: STRETCHTEXT

SECTION: SYSTEMS FOR THINKING WITH DATA

SPATIAL HYPERTEXT ENVIRONMENTS: CHECKERBOARD, CLOUDS (HANGING IN
3-SPACE), SWINGING PAGES IN 3-SPACE

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THE GENERAL-PURPOSE SYSTEM TOWARD WHICH WE ARE MOVING (LINE-DRAWING,
MOVING-TEXT)

THE VIRTUAL SPACE OF A CONCEPTUAL AND DISPLAY ENVIRONMENT

DASHBOARD ENVIRONMENTS XXX THE MECHANICS OF SPRINGS, LIGHTING & HUSH

FEELING-SPACES (INCL. MULTIDIMENSIONAL) MORE DIMENSIONS THROUGH COLOR,
SMELL AND SOUND MORE DIMENSIONS THROUGH SPRING-LOADING SWOOP MULTI-DIM
'FEEL' CLUES: AUDITORY, PROPRIO, KINESTH, PUSH-PULL, BREEZE, COLOR,
VIBRATION, STEREOPHONY, VISUAL STEREO

CAN WE CONCEPTUALIZE MULTIPLE DIMENSIONS? THE HYPERCUBE THE 4-D
HYPERCUBE CAN WE VISUALIZE 4-D CURVE? CAN WE VISUALIZE CALHAMER BOARD?
ADDITIONAL DIMENSIONS FEEL XXX RESPONSE QUALITIES

LIBRARY ARRANGEMENTS FOR ALL DIGITAL MEDIA SECTION: THE ONLY PERMANENT
FORM OF STORAGE DIGITAL STORAGE IS PERFECT DIGITAL STORAGE MAY BE
SAFEGUARDED DIGITAL STORAGE OF PAINTINGS ASCAP COPYRIGHT ARRANGEMENTS

SECTION: THE NATURE OF CATEGORIES

SECTION: THE NATURE OF THE CREATIVE PROCESS XXX INDUCTIVE & AXIOMATIC
CREATION

SECTION: SYSTEMS FOR ALL THESE

SECTION: THE NATURE OF IDEAS XXX MICKY MOUSE SECTION: SOME BASIC
QUESTIONS IN THE PSYCHOLOGY OF THOUGHT AND FEELING SECTION: UNITY,
STRUCTURE AND FEEL

THE CREATIVE PROCESS: CREATION OF OVERALL STRUX BY INDUCTION/
EXTRAPOLIATION; THREADING ON OVERALL STRUX; COMPARING OVERALL STRUX &
CORRESP. ITEMS & CONTEXTS

THE NATURE OF WRITING THE NATURE OF IDEAS EXPOSITORY STRUCTURES IDEAS
AS ANNOTATED CONNECTIONS XXX BREAKING EXPOSITORY STRUCTURES

CREATIVITY SYSTEMS TABLE OF MEDIA & THEIR CORRESPONDING CREATIVITY
SYSTEMS

TIME DISSECTOR FOR AUDIO, FSM

SECTION: TEXT CONTROL SYSTEMS CINCPAC

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INTERPERSONAL ENVIRONMENTS AIR CONTROLLER FVVT HANDSHAKE STRUCTURES

SECTION: ART & THE ARTS

SECTION: SCHOLARSHIP EXAMPLE: 4-D DATA STRUCTURE PERMITTING ROMAN
SNAPSHOTS

SECTION: THE DANGERS OF LOSS

SECTION: ON THE PROBLEM OF KEEPING TOO MUCH THE SOUVENIRS OF OUR WORLD
THE US NATIONAL ARCHIVE: 2 BILLION DOX

SECTION: REVIEW OF MY VISION: GRAND LIBRARIES, SWOOPING SYSTEMS, TRUE
EDUCATION, THE PRESERVABILITY OF THE HERITAGE A LIBERAL'S HOPES XXX OUR
MEDIA OF THIS CENTURY: THEIR MISERABLE CONTENT AND YET THEIR COMMON
IMAGERY TO US ALL PROFESSIONALISM, BUREAUCRACY, THE NARROW INITIATIVE-
PATHS TO SUCCESS IN OUR WORLD XXX WHERE THESE PROPHECIES STOP FREEDOM OF
INFORMATION FOR THE CITIZEN FREEDOM FROM CONCRETE POSSESSION OF BOOKS
FREEDOM OF EDUCATION HYPERSYSTEMS FOR EDUCATION IN THE UNDERDEVELOPED
COUNTRIES NOTE THE NUMBER OF ROLES IN OUR SOCIETY BUILT AROUND THE
HOARDING OF INFORMATION TRUE ACCESS TO NEWS THROUGH HYPERTEXT SYSTEMS
LIEBLING ON THE PRESS NATURE OF THE PRESS: OWNERSHIP VIEWPOINT, PRESS
SUBCULTURE, DOMINATION OF THE AGREED-ON, THE ANGLE, AND THE SILLY THE
DANGER OF SUDDEN ELECTRICAL DESTRUCTION I AM ASSUMING PEACE, OF COURSE

((APPENDICES)) -----

SECTION: TERMINOLOGY

SECTION: HOW COMPUTER DISPLAYS WORK HOW COMP. DISPLAYS WORK

SECTION: HOW COMPUTERS WORK

SECTION: THE MEANING OF DATA STRUCTURE

XXXXY

THIS IS THE AREA FOR HOLDS.

ACCOUNTING STRUCTURES THE NATURE OF ACCOUNTING

----- ((END OF HOLDS ZONE)) -----

*

THIS AREA IS FOR LIVE INPUT, IN A PROTOCOL FASHION. THE BOOK GETS PUT TOGETHER IN THE AREA "FCS", AT LEAST FOR TONIGHT. (3 JULY 1969, 10:30 P.M.)

THESE ARE RANDOM INSERTIONS TOWARD THE BOOK "FANTICS". 2 JULY 1969.
XXXXX REVIEW OF HISTORY TOWARD THIS POINT, REWRITTEN IN MY TERMS. XXXXX
THE GENERAL-PURPOSE SYSTEM TOWARD WHICH WE ARE MOVING (LINE-DRAWING,
MOVING-TEXT) XXXXX THE BIG SECRET: FREE ACCESS TO INTERESTING MATERIALS,
CONVERGENT MOTIVATIONAL ENVIRONMENT IS THE KEY XXXXX SUTHERLAND'S STEREO
SYSTEM XXXXX AMUSEMENT PARKS XXXXX

SECTION: TERMINOLOGY SECTION: HOW COMPUTER DISPLAYS WORK SECTION:
HOW COMPUTERS WORK INTRODUCTION SECTION: THE MYTH OF TECHNICALITY
SECTION: THE FABULOUS WORLD OF COMPUTER DISPLAY. OR, "TOYS AND JEWELS"
SECTION: SOME BASIC QUESTIONS IN THE PSYCHOLOGY OF THOUGHT AND FEELING
SECTION: "COMPUTER-ASSISTED INSTRUCTION" SECTION: "INFORMATION
RETRIEVAL"

SECTION: POSSIBLE WORLDS OF VISION AND RESPONSE SECTION: WHAT
EDUCATION IS ABOUT ANYWAY SECTION: HYPERTEXT SECTION: STRETCHTEXT
SECTION: HYPERGRAMS SECTION: CONTEXT JUMPS SECTION: AUTHOR'S SYSTEMS
SECTION: THE EASE OF USE SECTION: THE NATURE OF CATEGORIES SECTION: THE
NATURE OF IDEAS SECTION: THE NATURE OF THE CREATIVE PROCESS SECTION:
SYSTEMS FOR ALL THESE SECTION: SYSTEMS FOR THINKING WITH DATA SECTION:
THE DANGERS OF LOSS SECTION: ON THE PROBLEM OF KEEPING TOO MUCH SECTION:
A HYPOTHESIS'S HOPES

SECTION: SLAMMED MINDS SECTION: THE UNIFICATION OF SONIC AND VISUAL
ARTS SECTION: UNITY, STRUCTURE AND FEEL NELSON'S TIMETABLE WHERE THESE
PROPHECIES STOP MOVIE ANALOGY EMPEROR'S CICTHES BOOLEAN SYSTEMS: JUST THE
BEGINNING OF WHAT THE MIND NEEDS TUT-TUTORIAL SYSTEMS THE BADS OF CAI
BRICK-WALL ILLUSTRATION

"THE INFORMATION EXPLOSION" "THE KNOWLEDGE INDUSTRY" SYNOPTICS CYBER-
CULTURE MEDIA BARRAGES MEDIA BARRAGES MCLUHAN'S ONTO IT, EVEN IF HE
DOESN'T UNDERSTAND THE TECHNICALITIES. BASIC DISAGREEMENT WITH MCLUHAN:
THE GREAT DIFFERENCES AMONG ELECTRONIC MEDIA, AND THE STUPIDOUS DIFF-
ERENCE IT MAKES FRITZ MACHLER "TEACHING TECHNOLOGY" THE INSIDE STORY ON
PROG. PD.: WE HATE TO DO IT, HATE TO STUDY IT DERIVATION OF TERM
"FANTICS": TWO USEFUL ROOTS, "FANLIN," TO SHOW, AND "FANTASTEIN," TO

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PRESENT TO THE MIND OR EYE. THE LATTER WOULD CLEARLY, FROM ITS MEANING,
BE THE PREFERRED ROOT. HOWEVER, THEN THE WORD WOULD BE "FANTASTICS,"
WHICH WOULD HAVE EITHER THE WRONG MEANING. IT WOULD ALSO TAKE AWAY THE
SENSE: HERE I CAN SPEAK OF "A FANTIC SYSTEM" AND MAKE IT MEAN SOMETHING,
WHEREAS TO CALL IT A "FANTASTIC SYSTEM," THOUGH PROBABLY TRUE, WOULD CLOUD
THE ISSUE AS WELL AS RAISE THE PITCH OF DISCUSSION UNCOMFORTABLY.

((((I GOT THIS FAR BY 12 P.M.: ONE AND A HALF HOURS ON THE
MACHINE.))))

SPATIAL HYPERTEXT ENVIRONMENTS: CHECKERBOARD, CLOUDS (HANGING IN
3-SPACE), SWINGING PAGES IN 3-SPACE IGNORE CLUMSINESS OF EARLY SYSTEMS.
THESE WILL BE AS EASY TO USE AS TV SPTS THE TEXT FACILITY: QUEEN OF THEM
ALL PROFESSIONALISM, BUREAUCRACY, THE NARROW INITIATIVE-PATHS TO SUCCESS
IN OUR WORLD MICKEY MOUSE BRAIN PROJECT SUPER-AUDIO MACHINE CINEMYM "HUMAN
FACTORS" XXX NARROW CRITERIA OF "HUMAN FACTORS" GENERALLY IRRELEVANT XXX A
CHURCH CAN BE THOUGHT OF AS HUMAN-FACTORS DESIGNED, ANYHOW, IF YOU LET IN
ENOUGH VARIABLES AWESOME ARCHITECTURE SWEET NEW PRESENTATIONAL MEDIA,
ESPECIALLY ALL-AROUND-YOU SOUND XXSOUND, BEAUTIFUL PROJECTION SYSTEMS
POLYGRAPHY SECTION: THE NEW-MEDIA WHIZBANG XXX "BRANCHING" AS A WHIZBANG
ASPECT OF NEW MEDIA

----- (THURSDAY 8 JULY, 12 PM)

SECTION: HORIZONS FOR SALE EXAMPLE: FLIPSYCH EXAMPLE: MOVING-SCREEN
ICED OF RINGS EXAMPLE: HYPERFILM OF WHIT SECTION: ART & THE ARTS
SECTION: SCHOLARSHIP EXAMPLE: 4-D DATA STRUCTURE PERMITTING ROMAN
SNAPSHOTS SECTION: NEW MEDIA COMPONENTS SECTION: THE FANTIC MEDIA TO
1900 SECTION: THE FANTIC MEDIA TO 1950 SECTION: THE FANTIC MEDIA TO 1969
OR 1970 SECTION: THE MEANING OF DATA STRUCTURE SECTION: TEXT CONTROL
SYSTEMS

SECTION: THE COMPUTER AS MEDIA CONTROLLER NOBODY FORESEES MEDIA
IMPACT, AS A RULE SECTION: HYPER-FANTIC MEDIA OF VARIOUS SORTS SECTION:
COMPUTER-CONTROLLED MEDIA NICELY UNIFIED CONTROLS CONTROLS OF SONY TC-50
CONTROL OF ALL-TERRAIN VEHICLE HELICOPTER HANDLE AIRPLANE "STICK" SECTION:
THE COMPUTER AS PERFORMER SECTION: THE ONLY PERMANENT FORM OF STORAGE
SECTION: FANTASM-TYPE SYSTEMS SECTION: STRUCTURED PICTURES DIGITAL
STORAGE IS PERFECT DIGITAL STORAGE MAY BE SAFEGUARDED DIGITAL STORAGE OF
PAINTINGS

{(INPUT OF 10 JULY 1969. JUST STARTING PRODUCTIVE WORK AT MIDNIGHT,
AND I'M EXHAUSTED.)}

HOW COME. DISPLAYS WORK AIR CONTROLLER FMT HANDSHAKE STRUCTURES
ACCOUNTING STRUCTURES THE NATURE OF ACCOUNTING THE VIRTUAL SPACE OF A
CONCEPTUAL AND DISPLAY ENVIRONMENT 'MANAGERIAL INFORMATION RETRIEVAL' AS A
HOTCHA THING ONLY FOR THE TOP GUYS PATIENT RECORDS ONLINE CLERICAL IR
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ROLES IN OUR SOCIETY BUILT AROUND THE HOARDING OF INFORMATION JIBBLING ON
THE PRESS NATURE OF THE PRESS: OWNERSHIP VIEWPOINT, PRESS SUBCULTURE,
DOMINATION OF THE AIR-REED-ON, THE ANGLE, AND THE SILLY THE NATURE OF
INTELLIGENCE AND ITS GROWTH THE OPPOSITE AIMS OF TOP AND BOTTOM EDUCATION
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DESIGN SYSTEMS STATIONERY SYSTEMS THE CREATIVITY SYSTEMS OF THE PAST THE
RECORD-KEEPING SYSTEMS OF THE PAST THE SOUVENIRS OF OUR WORLD THE US
NATIONAL ARCHIVE: 2 BILLION DOX

((1 AM 10 JULY)) GENERAL DEBUNK-LIST:
IR, HUM. FACT., CAT, 'TOP MAN' IR DEBUNK ALSO: DIAGNOSIS BY COMPUTER,
AUTOMATIC DICTATION, ARTIFICIAL INTELLIGENCE I DO NOT WANT TO TALK ABOUT A
WORLD IN WHICH MACHINES ENTER THE BODY, AT LEAST PROSTHETICALLY OR
PHYSIOLOGICALLY OR INNERVATIVELY THE THREE BASICS COMPUTERS CAN DO FOR
SHOWING: STORAGE, PERFORMANCE, CONTROL (DIT ORDER?) MUSIC LIBRARY TO
FEED THROUGH MUSIC PERFORMANCE MACHINE INTERPERSONAL ENVIRONMENTS LIBRARY
ARRANGEMENTS FOR ALL DIGITAL MEDIA CHART OF FALLING PRICES FSM DESCRIPTION
OF GE FSM SYSTEM, UTAH FSM SYSTEM, DENVER FSM SYSTEM, NELSON'S FSM SYSTEM
LIBRARY OF FSM 'PERFORMANCES' LIBRARY OF FANTASM CHARACTERS

((1:40 AM 10 JULY))

INFO FACILITIES SUPPLEMENTING CREATIVE ENVTS THE MECHANICS OF SPRINGS,
LIGHTING & HUSH SWOOP FEEL CAN WE VISUALIZE 4-D CHBE? CAN WE VISUALIZE
CALHAMER BOARD? ADDITIONAL DIMENSIONS MORE DIMENSIONS THROUGH COLOR,
SMELL AND SOUND MORE DIMENSIONS THROUGH SPRING-LOADING REVIEW OF MY
VISION: GRAND LIBRARIES, SHOOPING SYSTEMS, TRUE EDUCATION, THE PRESERVA-
BILITY OF THE HERITAGE INCOME-TAX HELP SYSTEM (ALTERNATIVES) CONVERGENT
MEDIA VS. MERE ENGINEERING OPPORTUNITIES

((1:48 AM 10 JULY))

HYPER-COMICS HYPER-POETRY THE DANGER OF SUDDEN ELECTRICAL DESTRUCTION I
AM ASSUMING PEACE, OF COURSE HYPERSYSTEMS FOR EDUCATION IN THE UNDEVELOP-
LOPPED COUNTRIES THE SCATTERED CONSUMPTION OF SYSTEMS IN HOMES-- NOW TO BE
UNIFIED CASSETTE-CAMERA TIMETABLE FOR INTRODUCTION OF COMPUTER DISPLAYS IN
HOMES TRUE ACCESS TO NEWS THROUGH HYPERTXT SYSTEMS TODAY'S ROCK MUSIC
LIGHT SHOWS "MULTI-MEDIA"

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((8:20 PM FRI 11 JULY))

OL: DIGITAL CONTROL, COMP DISP., DIG. LIBRARIES 3-D 'TANK' RESPONSE
QUALITIES MACHINES MUST NOT MAKE DECISIONS FAKE SCIENTIFIC VOTING-
DISTRICTS WE MUST JOLLY WELL UNDERSTAND THE DECISIONS WITH WHICH MACHINES
ARE ENTRUSTED WHAT IS A MEDIUM? VIABILITY OF MEDIUM IN SOCIETY WHAT IS A
MEDIUM? VIABILITY OF MEDIUM IN SOCIETY CONCEPTUAL UNITY OF MEDIUM
COMPONENTS COUPLED EVERY WHICH WAY NOW ELECTRICAL COUPLING OF COMPONENTS
CONCRETE PHYSICAL COUPLING OF COMPONENTS MUSEUMS & FAIRS NOT GL. COMPU-
TERS BUT SPECIAL INDUCTIVE & AXIOMATIC CREATION EXPOSITORY STRUCTURES
BREAKING EXPOSITORY STRUCTURES THE NATURE OF WRITING THE NATURE OF IDEAS
IDEAS AS ANNOTATED CONNECTIONS

((CLOSED 10:48 PM))

GOOD OLD SKETCHPAD 1 SKETCHPAD 3 TIME DISSECTOR FOR AUDIO, FSM 'TRUE
STRUCTURE' SYSTEMS SECTION: THE MEANING OF STRUCTURED DATA SOOPER
PREDICTION WHOPPEROO (SHORT & SUMMARY) WHAT'S COMING IS STRUCTURED MEDIA,
NOT A HODGEPODGE TV ANALOGY BOOK ANALOGY ((1:15 AM 11-12 JULY))

CREATIVITY SYSTEMS TABLE OF MEDIA & THEIR CORRESPONDING CREATIVITY
SYSTEMS MEDIA THAT HAVE FLOPPED PROBLEMS OF A MEDIUM CATCHING ON:
MARKETING, COMPREHENCE, SIMPLICITY & CONVENIENCE MEDIA, ENVIRONMENTS, IDEAS,
COMMUNICATION, FEEL. ((3:10 AM 11-12 JULY))

((INSERTIONS THURSDAY-FRIDAY 17-18 JULY 1969, STARTING 12:30 AM))
FEELING-SPACES (INCL. MULTIDIMENSIONAL) CAN WE CONCEPTUALIZE MULTIPLE
DIMENSIONS? THE HYPERCUBE DASHBOARD ENVIRONMENTS MULTI-DIM 'FEEL' (CLUES:
AUDITORY, PROPRIO, KINESTH, PUSH-PULL, FREEZE, COLOR, VIBRATION, STEREO-
PHONY, VISUAL SLEEP) THE 4-D HYPERCUBE THE HOME TEXT CONSOLE UNIVERSAL
HIGH-PERFORMANCE TEXT CONSOLES NEWS HYPERTEXT STRATEGIC INTELLIGENCE
HYPERTEXT TEXT EDITING NON-FICTION HYPERTEXT SPHERE OF INTERCONNECTEDNESS
IN A LARGE-SCALE HYPERTEXT WORK THE MYTH AND TRADITION OF NARROW COMPUTER
USAGE, RIGID INPUT STRUCTURES (HARDLY SOPHISTICATED) WHAT COMPUTERS ARE
(BRIEF EARLY REMARKS) TEXT SYSTEMS ((12:45 AM 17-18 JULY))

((STARTED 3:20 AM, SAME NIGHT))

'MOST GENERAL MACHINE' THE CREATIVE PROCESS: CREATION OF OVERALL STRUX
BY INDUCTION/EXTRAPOLATION; THREADING ON OVERALL STRUX; COMPARING OVERALL

XXXXX THIS IS A NEW LIVE INPUT AREA, FOR FASTER ACCESS.

((THIS IS THE INPUT OF FRI-SAT 18-19 JULY 69.))

THE COMPUTER IS COMPLETELY MISUNDERSTOOD BY THE GENERAL PUBLIC. HALF-TRUTHS AND UNATTRACTIVE PUBLICITY HAVE SUCCEEDED IN MISLEADING PEOPLE AS TO WHAT COMPUTERS ARE ABOUT. SPECIFICALLY, PEOPLE THINK COMPUTERS ARE MATHEMATICAL AND RIGID, AND WHILE A CASE CAN BE MADE FOR BOTH THESE QUALITIES, COMPUTERS CAN BE NON-MATHEMATICAL AND NON-RIGID, AS THEY ARE IN ALL THE SYSTEMS TO BE DESCRIBED HERE.

IT IS NECESSARY TO EXPLAIN WHAT COMPUTERS ARE. COMPUTERS WERE CALLED BY VON NEUMANN THE "ALL-PURPOSE MACHINE," A MUCH MORE REASONABLE TERM. TO REMIND THE READER OF THIS WE OUGHT TO CALL THEM _APM'S, BUT THE WORD "COMPUTER" IS TOO THOROUGHLY ENTRENCHED. COMPUTERS ARE ALL-PURPOSE MACHINES BECAUSE THEIR PURPOSES AND MEANS OF FUNCTIONING ARE NOT BUILT IN, BUT ARE RATHER SUPPLIED BY PROGRAMS WHICH CAN BE CHANGED. COMPUTERS ARE ALL-PURPOSE MACHINES BECAUSE THEY MAY BE MADE TO CONTROL ALL OTHER MACHINES, AND DO SO IN EXTREMELY COMPLICATED WAYS. THUS ANY OTHER MACHINE CAN BE MADE A PART OF A "COMPUTER SYSTEM," AND THE WHOLE SYSTEM MAY BE PROGRAMMED TO DO MANY DIFFERENT TASKS OR PARTS OF A BIG TASK THROUGH ITS COMPONENT MACHINES, UNDER A SINGLE CONTROL. COMPUTERS ARE ALL-PURPOSE MACHINES BECAUSE THEIR USES HAVE NOT ALL BEEN THOUGHT OF YET.

COMPLIMENTS OF THE

HYPERTEXT EDITING SYSTEM

CENTER FOR
COMPUTER & INFORMATION SCIENCES
BROWN UNIVERSITY
PROVIDENCE, RHODE ISLAND

22 JULY, 1969