Bodies in Play:

Shaping and Mapping Mobile Applications

May 19^{th} – May 22^{nd} , 2005

Sara Diamond NOTES

Fundamental questions

Ability to cohere multiple fields
Visualizing social interaction imploding field
Task about language use—ideational, interpersonal, social linguistics
Trace of history through language
Context mapping, locative
Visibility—how put meaning back using maps

Thomas

Visibility through social context—ways that we organize space socially (traffic lights e.g.)

create order within systems based on what people do

The Babble System—

Rich spaces—social proxies—allow people to move forward with social interaction, e.g. discussion with dominant people, use of color, simple system guidelines—all see the same, actions, not interpretation, able to lie re i.d., etc., impression versus accuracy, 3rd person POV

Gerald

Language is about social interaction

Sound – find what express, meaning, vehicles outside of speech are gestures,

Modal interdependence

Combine modes (Intel multimodal sensory board)

Automatic Speech recog, text speech synthesis, spoken dialogue systems—gave assessment—Best results are ability to recognize idenity of speaker and language ID Ways of classifying writing systems based on which language, showed graphs Speech summary to text

meaning is key—mapping actions and visibility and accountability

Christopher

linguistic visualization—categories
Nat Lang Processing—documents, shapes and reps, keywords, occurances, thenes, summaries, importance, priorities
Word relatedness
Topics and relatedness
semaintics, meaning
Language analysis
Real time synthesis of ideas

Andrew

Speech use in communities
BNMI texts
#s of words
weirdness
weirdness and adaption of words/adoption
invention of vocabulary
ontology over time
productive nuclei
film scripts and tropes—how to represent—predictability

Andrew K.

cultural framework,

Myth of IO—the woman who made into cow—through writing showed that she was IO In fact suggested that it was a very clever cow who wanted to be human, like machines, we make in our image writing as social rupture bearing witness (nice with space) crisis in cognition

NLP and prediction – right grammar wrong words for meaning poetics as sphere of restructuring language (last night)

Jabber

ways of thinking—task, data driven versus meaning driven (CZ debate) idea, relation, social, tesxtual

Role of affect and search for affect (Gerald) work with data, unpredictable versus predictable (as goals) Annotation is there a prior grammar or does pattern ermege SMS new language forms—built in safety net of meaning

Jan Christoph

stage, memorable, sensations, new economy WoW! Flow! Show! exploration of sensorial and emotive versus tasks e.g.s of work, Strange Fruit, messages on a butterfly Master/peer/slave Heat sensitive wall paper

Minna—experience questioned critical practice, design as critique discursive semantic levels, ontologies VISIBILITY—mobility, pervasive Aesthetics, OVERLAY chalking where wifi is as e.g.

Rhetorics—genres, social, political historical, social threads formations

Pope—ambiant moving knowledge and static (librbary) move through CSCW fine grained analysis

Critical ethnography daily life

Julie—MUSE

location based caches, insights into key groupings through character modeling indiff. conserve, social butterfly,m pleasure seeker,m poractical minimalist wrong questions, cause was about technology not context and play (older people) taking photos, sending postcards i.e interaction

Aestheics, practical beauty crafting practicality

Locative media **Mark**Sousveillance
File sharing/Heritage—key point

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DAY 2

Jason 9:40-10:00

Text Font Soberness—poet and comic book lover—bring together, manipulation of visual form of language—meaning—Johanna Drucker

Active Text—1996—Text Organ = digital graffiti, can full of letters—instrumental, emotional, expressive (aesthetic)

NextText—software in JAVA and creative production—answer

StillStanding—read by not interacting, text on the floor, bounce back, legible, when move, falls to floor (like Text Rain)—anti-interactivity dance

Speech recognition and text onto the other person, words follow him

Scan soft—working with them to get emotion, attitude, intention, qualitative mapping issue, arena where interesting creative work

SADI—Science, Art, Design Interface—physicist and engineer, convey to non-physics audiences, feel of equation—create object in space and as object moves the equation shifts-shatters into particles in different directions (?)—skeptical—math and math movement, interaction with text—

City Speak—MDCN—use PDA as an interface

Infiltrate text and visible language—technologies in space—private to public, voice in public space, mall—

Not about capturing data, playing in space between reading and looking, action of text and pixel—meaningful and evocative

Leena

Researcher—Crucible—research and production—election engines using comic style visualizations

Accidental Lovers—deep into production, shoot in June: Mita Tomula

Participatory black musical comedy for Finnish television

30 year old rock star and Julia who is 60—neighbors—below the screen—scanned for keywords—scanned for messages—key word accumulation—4 different deaths—Robert might kill Julia over artistic differences—accident where Julia dies in car crash Each act begins with a music video—music videos as driving force—next level of relationships

Call them decks as a metaphor for playing cards and how you shuffle the deck and get results—repeat a day, not a day but a year, repeat 48/night, one cycle 30 minutes, four hours of broadcasting time/night x 8

97 clips/seems like a seemingly endless amount of combinations—could claim infinite stories

Random to semi-random, will find that certain scenes would not follow (e.g. pans)—crossing the axis—marked with metadata—limit for randomness, also still images that can put between videos

Associative story telling—keeping surface to interest audiences—create associative—metaphorical—"I am a divine goddess with exquisite taste"

Electricity goes down in NYC, then electrician fixes; if scene is first with electrician then power outage after, order structures narrative

What will they chat about? 3000 audio voiceover clips connect with key words They will care about the drama—of course if the pope dies will preempt???

Locations—fiction and real (that is the challenge) people pick up—

Christina is a rock star—will comment about the text messages people send First person view for characters-direct gaze

text-video-audio OR if audio/text at the same time-markers for message scan Future—rooftops, roof tops, does it now demand location based mobile application? In the space

Sheelagh, goals –people reaching for augmenting communications-developing visualizations—what make visible, have meaning, are useful,

If useful are they usable-e.g.s re real estate

Sheelagh shows Annie's early work for CodeZebra that looks at the dynamics in a discussion group

Variable of motion control—later version shows time

Shape of conversation—2 people

6 people in discussion with each other—patterns on history and log file—first column conversation starts—has created a senses of history, emotions in the conversation, use of color, cooler sad emoticons, transparent, question marks, solid is exclamation marks Display name changes—symbols, sign on as bud and then become flower, if change name, animation—changes over time—garden growing

Andrew: aesthetics of computer writing, why accept the quality of computer writing, python and typography, embed computation into skilled graphics practice, post-script as programming language—readability and expressivity—text as graphic and as texture— Andrew, visually centered writing experiments, before digital writing, the semantics of meaning based on positioning in the sentence—not a morphology—rock as verb or noun Scripting in the traditional sense and scripting for the computer—participation and story telling in film—t.v. story telling, new genre face one by one—intuitive strategies—t.v. and usability experts, you will break suspension of disbelief, Mirroring, BT partner, if she makes rules have to export to editor, designer, get metadata, game genre and documentary, musical Aide a Femmes, Aid to Women, uses traditional technique, establish character as a viewer, Manneristic diva played by Catherine Deneuve Sheelagh—visualization with flowers and gardens, challenge to represent social phenomena, representation that is intuitive or iconic, or learn symbolic representation over time, richer set of elements—prevalent, symbolic or agreed or intuitive or automatic. Some kind of cultural context and agreed on meaning...how long does in take to establish—does not need to be intuitive, because usability of alphabet would not get it, big issue!!!! Play in space to look at where we as culture

Distinguishable, far apart, cognitive science, Colin Ware, semiotics, Bretan, represent time through nature, sesasons, decay and time

Thomas—understandable and learnable, see own utterances reflected in real time, remarkably easy to learn what is happening. Bounce off what is happening—learning movement, testing and finding what is right…tight interactive loop, 3rd person

Complex Social Data

11:28-11:48

Amber Frid Jiminez—word frequency count—loosely defined concepts
Create a shape based on the weight of the words according to your search—where
extends out wards are topic area—working interface with average document/search
Can pull on part of the shape and use as a feedback use, looking t visual document—
medical records

Other work, words out of order, scattered and looked at form of written word, how hold to the form?

Misleading qualities, structure falling to pieces, kind of information from a tree structure (e.g. email classifications)—dendograms, problem with scaleability—7 million documents—Zoom and get detail

Tree rotation, etc.

Moving from Machine learning group to the physical workshop—dealing with visualizing and collaborating on large collections of video and photo

Tom and Tina

11:50-12:15

Creating a new emotional language—using images of the body, what we do not like about being human, fleshy, skin as interface and touch, disease—ways of working sound, pace, image and color very intuitive, embodied emotions from body to moving image, subconscious editing process, do not want to analyse too much—challenge personally re intensive meditations

Leak your wounds to the world, ideas of how emotions work, inside out..smile, Users and response.

Data and visualization not possible to see, e.g. not looking at the screen, whenever visualizing there is Heisen data and observation as a problem

Analysis is always performative—either or designer become a performer, what sort of design methodologies

Not use connectionist model for elements of meaning, look at tone and rhythms, flow, flipping, etc.

Use of hip hop rhthm and translation to patterns, got sense this mood is representative—possible to imagine mood that wearer in from emotional content that came out. Sense of rightness. Not overly semantic.

Sheelagh

Difference between computer science and design. Hand drawings. Rethinking tree structures.

Physiological data to emotion, sorts of interpretations become a bias in the system.

Complexity of data to work with from EEG. Some sense of meaning is simple.

Heartbeat/minute...phase space, relatively without multi scale dynamics. Viewer with some sense of the change—not compelling

Document icons, dimensionality reduction problem. Term frequency, TFI and then semantically by hand????

Extremely compelling! Stripping away pretention—authenticity—truth

Highlighted neuroses and also provided a proxy

Design, longer wear the more absurd intimacy—3 Fridays

Play as instrument

Paul 2:25—2:45

Developers and designers-publish under location games—fitness and lifestyle Torpedo Bay—maps on the game, emulator, virtual aircraft characters and destroyers around you virtual, move to get ammo etc.

Map of players

Legal, problem of players killing each other

Accuracy an issue, re game play

19% Canadians have location handsets

25m over world have GPS

Technologies—GPS, A-GPS, Network Triangulation, Cell site – sector

AGPS chip block,

Satellite to phone, phone to server, calculates location

Triangulation, AFLT, Wi-Fi, EOTD, TDOA

Urban canyons an issue

Accuracy and difficulties to play—cell site sector

Not huge adoption

Sun l payu [er [playu,l prpodiuct undloes, network traffic costs, maps

issue, multiplayer, latency, privacy, accuracy

research market, what are carriers using, real world and virtual world combo. works Nolan Bushnell—Atari and Chucky Cheese-fitness etc., location games are the next to be.

Michael Lenczner

Fixed nomadic and mobile

2:48-3:08

Mobile games, blurs game and non game (Assasin)

Method of working

WiFi Code

Funeral centre with wifi

Pattern Language emerges across the network

Holy Grail limited network, sharing around centre from Ipod

Ether tag and jabber

Barbara 3:06

Citizen not at the centre, but consumer

Liberalization of he market—ITU, citizenship and access

Convergence of media in Canada—Alliant, Telus, Bell, Telus, some few smaller telecommunications industry

Using Wirelines and subsribres;;decreased wireline use, wireless profits, bundling of services

Growth industry

High salary rates ICTs flexibility, 60% call centre agents, 35%

Non starndard jobs, no pensions or benefits

iPAC and cell phone, increase in the use of nations

Cellular phones—very gendered, sociality in studies

Players and issue reflect work and context, more than hot spots, challenge forefront principles

Minna—unbundling—recalling after Barbara

Public private partnerships, e-governments and plans and utopias, business of e governments—new models of working

Working models-WiMax content out there for awhile, like warehouses—free and similar to the CBC

Political, economic and social context—mixing temrs, what constitute wireless technology

Redistribution of jobs around technology, implications of non standard work Sustainability models

Loss of Canadian content, user generated product, explosion, bit torrent, bandwidth costs etc.

Accuracy, latency, location

Gerald—what happened to the amateur radio operators?

Radio community, better relationship, term "technological nationalism"—

Telephone, not discriminate on basis of distance, rhetoric not in place, do not see wireless as making up the fabric of Canadian society Paul, Internet,

E3 mobile groups nil, nobody was Nokia, Playstation portable lots of terminals open, 100s of people sitting on their own playing, products are not being pitched right to customers, re badged mobile content, all non original IP—not location based, gaming on portables, industry gurus, all sewn up, one thumb gaming—way market is working publishers making deals with telcos.

End users, future changes, depends on new and alternative modes of production, opportunities

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DAY THREE

TOM:

Context of use important, more than large screen to small screen A lot of talk about how you are supposed to do things in mobile world, real use would be valuable

Types of models of relationships—SMS, Interactive TV Commonalities of models

9:58 -11:15 9:58-10:13

Video games are 7.1 and HDTV—old game formats—fit music into small space—Portable becoming mobiles, Nintendo DS is releasing Voice Over IP –has WiFi PS2, WiFi, Share games via WiFi for fee; mobile games are ports

Game Audio returns to its roots, regressive technologies

Limited specs for mobile audio - Loading issues

mobile games – 70 kilobyte—10% for audio, memory, budget—mobile two steps behind—hand held systems—mobile system

Synthesis and Sampling—Synthesis dynamic, modulate in real time—heavy on CPU 8k—no frequencies crunchy, easy to code, hifi, sampling, brittle, ram consumed (big dump wave form) Sample always played the same way, can sequence, API can do pitch and volume modification, dynamic changes, combine sampling and synthesis, granular synthesis pull apart bytes

Small speaker, no surround sound and instead adverse listening, dialogue is king in audio for games, dialogue takes place of text, can you hear? **Q: CONTEXT SOUND** Headphones are dangerous—overlapping realities, which wins out—ear buds

MIDI—must undo MIDI revolution, static

CONCLUSIONS:

80s and 90s tricks, consider any bit of RAM, update with content from the server, loading off the DVD type thing, utilize synthesis, update content via blue tooth, share content with other players, enjoy lowfi aesthetic

Combination synthesis samples real time effect and code, real time composition and coding, real time, physical modeling in real time, rethink audio, produce score, reperformed each time

Jurgen: 10:17-10:38 Research Systems MobiLenin Mobseration

Pyton as programming language

Large—conceptual, group: multiuser, Designing social experiences, mobile applications, learning, edu, situated learning

Approach: Rapid prototypes, field studies testing, early stage into test users, iterative cycle of design, publications, improve design through iterative process, MobiLenin

Lottery system chooses winner, own song, user will receive a poem and gets beer Field evaluation in restaurant in Oluu, Paper on MobileHCI ****

Provide new choices to people after awhile, drop in and drop out, win through lottery, easy to leave

Experience design to make new versions, make another version for application development

Field trial and let them speak, video interviews detailed info.

Mind Map editing tools—share images on map, learning experience Took pictures of animals, asynchronous as well as synchronous—gorgeous animals in Banff meditation

10:40

Thomas Erickson

Large to small direction, struck, maybe going from small to large, large is space that we are in, so, way to look at mobile is yes, have tiny screens and have to be clever, but should think of **new display as the world and the landscape**

How make the landscape into the gamescape—how to shift the posture, not map, instead show snapshot of place looking for, mobile device but more often looking at space, how get pictures as annotations in the environment, e.g. clearing changes with seasons. Players and move around landscape, play elements in their own right, multiple people playing the same game, people returning from game space, could talk with them and trade advice, yesterday as starting,

Frequency and key words—TAGGING spots

Landscape, handhelds as triggers—ravens provoking ravens, bird calls and reactions, if could get enough volume to do calls—to pursue

Destabilization and liminality—

New technologies into non standard work, happened to him in a good way, technologies excluded from supportive institutional structures

T and T, subverting attempts to look interested, subversion of tension of guideline for social proxy (allowing lying) versus revelation, jewelry destabilize and reflect, do not want to wear all the time—walk after the game—Japanese trading cards--Rurouni Kenshin Cards!

Invert relationships with parents where kids can overrule

Liminal role and work to invert our relationship to nature and other places

Tom: Keywords, builds rocks and put back into the environment Given devices limited in capability, refresh content in some ways, blue tooth caching content Aesthetics: strong aesthetics coming from those constraints, social usage is a strong constraint—aesthetics of social use-mobile device just a facilitator for group interaction with screen, rather than a tool with access to data

Minimal choices, social driver

Physical yet virtual space—audio, problem that music pulls you out of it, music sound scape, call and response activity—gesture, play with response and react—analog to blue tooth have to be close, idea of proximity, distance, and signal

Guide and interactions

Blue tooth application, open folders and add pictures and clips about yourself—location—look at content, flyer, MMS—does not go over data network, picture, text and sound file and hop from your phone to 2 others, through mechanism

Social Nature of mobile phones—what happens at close locations, exchange sound files, discussion re games, how use mobile in close social environments, enhance social contract between each other, in woods, power dimensions of blue tooth sucking energy out of phones—steal each others power—what are new alternative phones, close social environment

Emotive quality of voices, space, practice your bird calls, amplify the sonic nature of distributed people out there—performance in the space, sonic, social, funny, call animals, Real time frequency and speech analysis

Sheelagh, Julie, Andrew K., Barbara

Sheelagh—started to make distributed social activities, collocated electronic aspects, part of game and here and satisfying, enjoyed the aesthetics of the small, enjoy the limits, Intel research stream about personal server, wallet without interface and powerful as server, commandeer your computer, display, lots of power, no interface and commandeer Project display, could have redisplay

Like discussion of the environment as display space, looking back MIT, broaches with chips if facing, created a game for kids either a school of small fish or large, large to eat, small to reproduce—real world strategies, make oneself – decentralized knowledge, pragmatic

Rhetorical structure-individual subverts social, ethos, individual and social use, social mobility and individual gain credibility socil and cultural health that you have--idea of liminal space within commercial space, in city surrounded by the market—parallel of putting words into spaces, ahead of the market—mobile actors

Models of transition between the real and virtual world, bird call models, training mechanism flows, sense of social dilution, devices, removal of capability, force into the real away from mobile, models of transition, strong models could d

Brian Fisher 1:32-11:52

Doug Engelbart-\$150 million—IEEE Press, 150 other people, recommendations, helped to write, richly interactive applications, need support-richly interactive, perception as system, meaning, flow, confidence and abstraction

Mind as a concept, cognitive architecture, hearing scenes mathematical modeling

Need to understand mind and culture Individual sense adapt to disaplay

Sensory mind, recalibrationg by sharing

Relationship and virtual environments, and perception of depth, cannot make judgements

Cognitive depth and judgment —vary size, analyze the ways that people see, performance similar within a subject, evolution on same page—slides error, not huge in metric judgement for problems—metric

Move beyond look at system, top down and bottom up, and recognize complexity, see HOW built, system for rich interactive, persception/action control loops—100 years into the future

Next best, work with musicians—MoCap, Tooka collaborative instrument, high verisimilitude environment, control intimacy, close collaboration, HCI problem pressed onto musicians, affordances from Flute, forever to learn, but virtuosity and control, end goal of effective HC system, treat like HCI

Language/gesture, qualities

Info for multiple senses integrated, Perception/action, coordination between uses, biosignals

build software human qualitative Matt Lab

11:55-12:15 Jaanis

Science outdated, successful because of the use of visuals, obsessed with connections Horoscope for Christian society

Approaches—started with Mark and Karlis, Cartographic Command Centre—free and open GIS into collaborative cartography—set up scales, task to visualize projects into composite images, shown in the middle as a stereoscopic projection, some roots in other projects, that were abstract—review—visual forms to relate to data, movement to sound and image

12:15-12:35

Mathew—history file in netscape as a virtual sculpture and representational, transition from drawing to using digital processes

From solitary to group, shared ontology—two cultures—discourse in making of work, Wiki as tool.

How do technologies become thinkable—construct or de-realize subjectivity—machine is central to phenomenology of technology **HOW DOES THE MACHINE BECOME THINKABLE**

word processor and machine, self as author. reader. where does definition begin and end. entropic interpretations. draw through structure. dissolve and propagate, what virtue machinations? **Machine is always a fiction...**

ETYMOLOGY—words as composites, history of development of how becomes thinkable—thinking about it or me? (Andrew)

Gift, wealth, power, MACHINE, means, magnification, power, Growth, fertility, maternity

Statistical –SIL – how perceive statistical features within data base of geometry, non topological relationship to points but rather recognition of data.

Product or tool for producing new islands. Part of the system.

Semantic space in collaboration.

Engendering sexual intercourse. Transformations of pumping Trancategorical engine of cognition, state of ambiguity, Aesthetics.

Latent presence, aggregations of data and the system and system of production.

Binging process—aesthetics as process or state

Harnessing process to maintain a state, process of harnessing him, machine as userful and used by ngendering

How relate to mobile media—category unites, place space or geometry impose or touch with semantic layer, inherently sign system but also metaphors that are embodied—category is aggera, cram something separating. Conceptualize need embodied

Hrad--aesthetic appreciation—concept, bridging art community and environment, involvement with open source GIS, shortest paths, aesthetics related to community Talking about flower gardens, SPRING,

My comments and questions

INTERESTING DIALOGUE ON UTOPIAS

Embodies aesthetics and abstraction

Liminal space

Metaphoric; evocative;

Brian, tools to understand and analyze the confluence of humans and machines, applying to other forms of creativity in order to generate values. Goal a kind of invisibility or capable for virtuosity.

Mathew-problem of machine to build a machine! Exact opposite-word processer-continuity of creation is nature of machine, CONCEPT is under constant negotiation, but machine is boundaried

Brian's was valuable as a reminder of perceptual limitatoins, and then this turn to the non technological as the utopia of ubicomp.

sara@codezebra.net says:

Jaanis is cognition meets abstraction. UTOPIC—Jaanis work with cognition and virtuality--Physical devices, online exchange of services, through body parts

Kant and Hegel suggest that beauty is relational, constructed through the complex intertwining of object, maker and viewer. These notions are later embraced by psychoanalytic thinking that privileges the desire of the maker in relation to the object and then, later the maker, its superego (audience) and its object.

The idea that aesthetics helps to construct a sense of social order is taken up by French anthropologist, Pierre Bordieux, who explored the role of social values of beauty, taste, form and function as a means of creating social consensus.

Some cultures have embraced complexity, discontinuity and asymmetry as organizing principles. Traditional Japanese aesthetics bias towards a beauty includes incompletion and imperfection or imbalance.

Deconstructive beauty—aesthetics as ambiguity, misreading, rereading, discourse

Performative aesthetics (tom)

Discussion-Croquet—GUIA—developmental psychologists—Piaget—tactility—visual, becomes symbolic—Laykof-models of cognition could serve as a basis for aesthetics of interface—bootstrap new subject—included artists and children—remember

Hrad-space, mental models, space move through and manipulate, environments, musical psycho linguistics, Linda Caster, music discourse analysis—performative aspects and embodiment from perceptual/action loops

Tight motor loops—overt and heard

Hrad—computer science—aesthetics very physical and farming, nothing to with technology—

Jaanis—different approaches, extremes within same person—what way important, what doing intuitively, process become most critical

Future immersion and bridge—illusion of bridge, dangerous—realizing that there is no bridge, illustrate abstraction, design history went

Gerald--Consistency in mistakes of individuals, extends across modes Flashy is specific...