Investigation of collaborative browsing and the consequences for library systems design: an ethnographic account of searchings* local production (Strand 2).

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Abstract: This strand of the report is concerned with explicating or 'making visible' searchings*[1] 'real time, real world' social organization as made manifest by users in the production of library searches and accomplishment (or attempted accomplishment) of information retrieval. Specifically, the aim here-in is to make available for inspection the *ways* in which users or members locate and retrieve materials that satisfy their information requirements ('wants' or 'needs'). This strand of the report is not concerned with multi-media - the details of CD-ROM and BIDS 'real world' employment in information retrieval will be explicated in strand three of this report - and as such, this strand of the report's 'electronic' or 'technological' concern is limited to the pragmatic details of the library's in-house on-line public access catalogue (OPAC) in searchings* local production[2]. In making the ways in which members produce searches and accomplish information retrieval visible, it is not suggested that members employ all the methods constituent of those ways always and in their entirety - on the contrary, members employ those methods selectively, sometimes employing all of them, sometimes just a few *as situational search and retrieval contingencies require them to do if their efforts are to be efficacious.* What is being presented here then is a description of the 'corpus' of ways in which searching* is locally produced and accomplished by members on any occasion day-in-day-out in-the-face-of any and all contingencies.

Introduction: The production of searches and accomplishment of information retrieval may be usefully categorized as 'catalogue or systems navigation' (navigation for brevity's sake). Ethnographic findings suggest that members engage in systems navigation in one of two basic ways:

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[1] Where searching is spelt with an asterisk - searching* - then it is to be read as standing proxy for a family of socially organized procedures or methods that are recurrently employed (to some greater or lesser extent depending on individual search contingencies) by members engaged in or *doing* searching and which are, therefore, productive of searchings accomplishment this time, last time and every next, even first time regardless of individual production 'cohort' (i.e. member, person, user, client, information seeker etc). Searching* thus refers to the as-yet-invisible-but-to-be-made-visible, ordinary, everyday and artful practices constituent of information retrieval in libraries and thus constitutive of the 'library' as a living organizational thing (social structure or 'immortal' Durkheimanian social fact).

[2] The term 'local production' does not refer to the ways in which searching* is accomplished 'in-just- this-place-only' but, on the contrary, to the ways in which searching* is accomplished 'in-just-this-place-everywhere' and 'in-just-this-place-everywhere' on each and every occasion - i.e. in libraries in general as opposed to just this library given similar infrastuctures (an organized and staffed catalogue and some kind of 'indexing' system).

♦ in the first instance members know exactly what they want or need[3] and the practical navigational task to-hand is thus one of establishing the presence within the catalogue of known-and-sought-after items or materials and the availability of those items or materials, of establishing the materials whereabouts and of retrieving required items or materials.

♦ in the second instance members do not know exactly what they want or need but rather, have a general idea of their requirements - an idea which in-itself may and often is quite specifiable - and the practical navigational task to-hand is thus one of establishing the existence of some unknown-but-possibly-suitable items or materials that might (and ultimately will or will not satisfy the specifiable information requirement), of establishing the materials whereabouts and of retrieving required items or materials.

In either case the prima facie point and purpose of systems navigation is to identify, locate and retrieve search items that *satisfy* information requirements. The research and design question to be answered then is: what work does systems navigation construed as identifying, locating and retrieving search items consist in so as to provide for the satisfaction of information requirements, or, just how, in, through and as the work of identifying, locating and retrieving search items, do members satisfy information requirements ? If we are to answer this question we need to know:

♦ how members establish the presence of known-and-sought-after search items

♦ how members establish the existence of unknown-but-possibly-suitable items

♦ how members establish the whereabouts of known and unknown search items

♦ how members establish whether or not located items - known or unknown - will satisfy their information requirements and thus or thereby retrieve items

and we need to know how all of that is done *in and as of* the details of a practiced-activity-being-done - i.e. in and as of the 'real time' details of identifying, locating and retrieving's actual production and accomplishment.

Establishing the Presence of Known-and-Sought-After Items: Members usually, but not always[4], actively establish the presence and subsequent availability of known-and-

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[3] Knowing exactly what is required is not, as we shall see, without its problems for in as much as members know what they want they have to *actively* satisfy that known-want; the question is: how do they do that; what does satisfying a known-want consist in as a practiced activity ?

[4] Members also establish the presence of known-and-sought-after items on the basis of their organizational knowledge or their 'familiarity' with the catalogue. In such cases members go directly to specific sections of the physical catalogue.

sought-after items in and through the use of OPAC. The library's on-line catalogue offers members some eight search options:

<u>**SEARCH OPTIONS**</u>
1 Title
2 Author
3 Author-Title
4 Keyword
5 Subject Index
6 Serials / Journals
7 Classmark (Shelving Sequence)
8 ISBN
9 Short Loan

OPAC terminals consist in a VDU and type-writer style keyboard. The above 'options' display is a members starting point in navigating the in-house catalogue (it may be noted that the above is not a full representation of the OPAC 'menu' display; other 'information' options are also displayed - help and library information for example - the above represents all available search options however). Members select a search 'option' by pressing the digit on the keyboard that corresponds to the digit displayed next to the required option (3 for Author-Title search for example). Pressing corresponding search option digits produces new visual displays:

BRIEF AUTHOR-TITLE SEARCH

Input Brief Author Title: [*]

    Format Examples: - SMITH, J / CRIMINAL

                           LAWRENCE, D / SONS

Hint: Don't enter too much data e.g. DICKENS, C / PICKW is enough.

Media can be accessed seperately by e.g. -X-author (see Help menu option H).

All our records can be retrieved in Author - Title sequence.

Full catalogue records are only available for material catalogued since 1984.

For full records for other materials see card catalogue.

These specific option displays instruct or prompt members to 'input' brief (author-title in this case) details. The display furnishes members with simple 'format examples' and 'hints' that instruct members as to how to use the displayed option. The display also provides information concerning the catalogue's organization and thereby furnishes members with further 'relevant' navigational information. Members 'input' 'author-title', 'keyword', 'serial / journal' , 'ISBN' etc via the keyboard, which once accomplished produces a new visual display:

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BRIEF AUTHOR-TITLE SEARCH


Input Brief Author-Title:  smith, j / criminal


1. SMITH, I/WARDER'S EXPERIENCES...          Pamphlet
2. SMITH, J/ACCESSING THE INTERNET
3. SMITH, J/AMERICAN CONSTITUTION
4. SMITH, J/BIBLIOTHECA ANTI-QUAKERIANA
5. SMITH, J/BIOCHEMISTRY OF FUNGAL DEVELOP
6. SMITH, J/BIOTECHNOLOGY PRINCIPLES
7. SMITH, J/BIOTECHNOLOGY. 2ND ED
8. SMITH, J/BIRTH OF MODERN EDUCATION
9. SMITH, J/BISHOP CORNTHWAITE            Pamphlet
10. SMITH, J/BOOKISH QUOTATIONS            Pamphlet
11. SMITH, J/CANADA IN CROATIA            Pamphlet
12. SMITH, J/CASEBOOK ON CONTRACT. 10TH ED
13. SMITH, J/CASEBOOK ON CONTRACT. 4TH ED
14. SMITH, J/CASEBOOK ON CONTRACT. 6TH ED


F: Forwards, B: Backwards, N: New entry, S: Select item, M: Menu
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Items are displayed on these 'retrieval lists' in alphabetical order - by author's surname then forename intitial(s) - and the list places members at the 'beginning' of the relevant section: the 'beginning' not being, for example, the Smith section but rather, the Smith, **J** section. Item 'titles' are displayed correspondingly. Each item is numbered from 1-14 and 1-14 only. Members move 'down' (or 'up') the list by pressing the 'B' (or 'F') key on the keyboard as provided for by the instructions displayed at the bottom of the list. Moving either up or down the list produces a new, continuously ordered retrieval list in which items are again numbered from 1-14. Members select an item by pressing the 'S' key and

then the digits corresponding to the item's displayed number. 'Selecting' an item produces a further display:

BRIEF AUTHOR-TITLE SEARCH

Classmark: SM500 [B Floor West]   **ISBN: 0406014809**

SMITH, J.C.

Criminal law : cases and materials / Sir John C. Smith, Brian Hogan. - 5th ed.

Butterworths, 1993. - 676p.

For other eds see other entries.

Brief Author/Title: SMITH, J/CRIMINAL LAW. 5TH ED

3 copies.

Loan details:

Vol	Copy		Issued	Due	Recall	O/Due1	O/Due2
1	1	S-LOAN.					
1	3	Long Loan	19 SEP 96	14 NOV 96		20 NOV 96	27 NOV 96

Q: Attach/Detach personal bibliography, E: Email, Z: Short Loans
F: Forwards, B: Back, N: New entry, L: Back to list, X: Navigate, M: Menu

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This display represents the 'baseline' in OPAC searches: notably it provides members with the item's classmark - which in terms of the catalogue's organization provides for the item's 'placing' and for members - both staff and users alike - provides a

navigational 'sign-post' in and through being employed as a locational device; it provides bibliographic / catalogue details[5]; it tells members how many copies are present and available. It may also be noted that different 'search options' produce different displays: 'subject index' and 'classmark' retrieval lists are ordered by classmark; 'ISBN' requires a precise item No. 'input' and goes directly to the specified item; 'keyword' retrieval lists are randomly ordered; 'title', 'author', 'author-title' and 'serials / titles' retrieval lists are alphabetically ordered; all 'listed' items are numbered from 1-14 and all 'baseline' displays are the same regardless of search option-in-use.

Having outlined the basics of OPAC operation, I now turn to an explication of OPAC's 'real time, real world' employment in systems navigation towards the specific ends of 'making visible' just how members actively establish the presence and availability of known-and-sought-after items in and as of a practiced-activity-being-done:

1) Ian: three friggin quid it cost me that
2) Sam: what's this
3) Ian: its an audit commission report
4) Sam: oh right .. that's what you're using for y'
5) yeah . its got references in it
Ian reviews the audit's bibliography - providing known-and-sought-after items - initiates an 'author-title' search - Farrington, D / Understanding and Preven - OPAC displays a retrieval list, Ian browses the list, the item is not displayed; Ian presses scrolls back up the alphabetically ordered list, the new display doesn't contain the item either.
6) Ian: so thats not in anyway
Ian writes 'N/A' next to the item in the audit's bibliography
7) Ian: it only came out last year
8) Sam: right
9) Ian: I wonder if Smithy might have it ... one way of cutting down on er . photocopying bills if you can borrow it off your supervisor isn't it
Ian reviews the audit, returns to the OPAC menu and initiates a 'serial / journal' search - Psychological Bulletin - the item is No. 2 on the retrieval list, Ian selects the item and retrieves the item's specific bibliographic / catalogue details which he reviews and then writes down the item's classmark correspondingly in the audit's bibliography
10) Ian: right
Reviews audit, iniates 'author' search - OECD - OPAC displays two OECD items listed No. 2 and No. 3
11) Ian: suppose it'll be there
12) Sam: (inaudible)
Ian selects item No. 2 - OPAC displays '352 main entries' in alphabetical order, Ian scrolls forward through the list; the item is not displayed where it 'should' be, Ian checks the audit reference which furnishes furrther particulars regarding the OECD item (full title, publisher etc) and checks one display past where the item should be listed, he then writes N/A next to the audit reference and selects another item
13) Ian: author
Ian initiates an 'author' search - Utting, D - the item is No. 3 on the retrieval list
14) Ian: that's the one
15) Sam: yup
Ian selects and reviews the item's specific catalogue details
16) Ian: one copy . long loan
17) Ian: I'll have to order that
18) Sam: you're going to order it yeah .
19) Ian: yeah . there's only one copy so I better had
Ian writes the item's ISBN No. next to the audit reference, reviews the audit and initiates a 'serial / journal' search - Criminal Behaviour and Mental Heal - the item is not displayed; Ian scrolls back, forward and forward again, writes N/A next to the audit reference, reviews the audit and iniates a 'title' search - Oxford Book of Criminology

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[5] Although not shown here 'baseline' displays also provide members with further cataloguing details such as the number of 'holdings' for serials / journals (years and volume numbers) and 'points' or refers members to library personnel (by 'ask enquiries' next to classmark) in obtaining access to restricted or alternatively 'managed' materials.

20) Ian: this one will be in surely
21) Sam: you'd have thought so wouldn't y' . something like that
OPAC does not display the item; Ian scrolls back, forwards, forwards, writes N/A next to the reference audit and initiates an 'author-title' search - Brodie, I / Exclusion From School - OPAC displays 6 items, the required item is not displayed
22) Sam: not a lot of luck
23) Ian: no . I didn't think there would be a lot to be honest
Ian selects another item from the audit bibliography and initiates an 'author-title' search - Gillborn, D / Racism and Exclusions
24) Ian: nope
Ian scrolls back then forwards, writes N/A next to the audit reference and initiates another 'author-title' search - Rutter, M / Fifteen Thousand Hours
25) Ian: now if this buggers not in here I'll eat my hat even though I haven't got one
Ian sighs
26) Sam: you're joking . it might be further up
Ian scrolls back one display
27) Ian: I don't believe that aint in . its got to be in
28) Sam: thats what . standard . classic text or something
29) Ian: yeah
Ian writes N/A next to the audit reference and initiates a 'serial / journal' search - Journal of the American Academy of and selects No. 6 on the retrieval list
30) Sam: that it
31) Ian: no thats not the one
32) Sam: that the one . no
33) Ian: no
34) Sam: what's it called Ian
35) Ian: its the journal of the american academy of child and adolescent psychology
Ian writes N/A next to audit reference and initiates an 'author' search - Health Advisory Service - the item is not displayed, Ian scrolls forward and forward again then initiates a 'title' search - Together We Stand
36) Sam: is that the same
37) Ian: yeah *(title of the Health Advisory Service item)*
OPAC doesn't display the item, Ian scrolls forwards, forwards and forwards again, writes N/A next audit reference and initiates an 'author-title' search - Learmonth, J / More Willingly to School - item not displayed, Ian scrolls back then forwards, writes N/A next to audit reference and initiates an 'author-title' search - Lewis / Truancy, the Partnership App - the item is not displayed
38) Ian: have a look at that
39) Sam: what's that
40) Ian: another one of his
Ian is refering to an item displayed on the retrieval list, he selects the item Student Teacher Interaction - and reviews its specic catalogue details
41) Ian: no
42) Ian: did I try that . y' know when I did that rutter one . did I try that on the . er . ti . on the title
43) Sam: tell you in a minute *(checks his notes)*
44) Ian: cos I can't believe that's not in
45) Sam: fifteen thousand hours . author-title you did
46) Ian: right . try that on title then
Ian initiates a 'title' search - Fifteen Thousand Hours: Secondary - the item is displayed No. 1 on the retrieval list
47) Sam: got it
Ian selects the item and reviews its specific catalogue details
48) Ian: twelve copies . fucking hell
Ian writes the item's classmark next to the audit reference
49) Ian: right
50) Sam: that it
51) Ian: try and go and find the other two bits eh
52) Sam: yeah
53) Ian: didn't get a lot out of that did we
54) Sam: noo huh
55) Ian: I don't understand that . how it can be under title but not under . author-title
56) Sam: author-title
57) Ian: it just seems
58) Sam: yeah
Ian and Sam go to locate and retrieve the present and available known-and-sought-after items

In the above sequence of talk an audit bibliography provides for or furnishes known-and-sought-after items. Members frequently employ such 'bibliographic' resources (including reading lists) in instantiating searches. Alternatively, known-and-sought-after items are typically 'something that I heard about in a lecture or seminar', 'something I read in a

book', or 'something someone told me about'. Regardless of the source furnishing the known-and-sought-after item, the above sequence of talk shows just how members actively establish the presence and availability of such items. Knowing-what-is-wanted, members orientate in the first instance to the OPAC menu and constituent search options as elementary categorization devices enabling them to 'fit' the known details of the sought-after item 'into' the catalogue: a bibliographic resource entry providing item title and author name 'fits' with search option No. 3 ('author-title') just as a bibliographic resource entry providing journal name 'fits' with search option No. 6 ('serials / titles'). Members are not rigorous in accomplishing 'fitting' - i.e. they do not always implement the 'best fit' but may elect instead to implement an 'adequate fit': they may, for example, select a 'title' search or an 'author' search rather than an 'author-title' search. Typically however, members do implement 'best fits', employing the other search options in problematic circumstances (see utterances 42 - 49 for example). Regardless of 'fitting' method - best or adequate - members not only employ OPAC as a means of putting their information needs to the catalogue by making information requirements intelligible in terms of the catalogue's organization in and through elementary categorization work as provided for by OPAC's 'menu' organization, but in and as doing so employ OPAC search options as problem solving resources for actively establishing the presence and availability of known-and-sought-after-items in and through using those options as traversable structural 'pathways' providing for the problem-prompted re-formulation of the 'fit'. An 'attained fit' - i.e. a structurally formulated need that is accepted by the catalogue but that does not necessarily provide the sought-after solution to that need (see utterances 10 - 12 or 19 - 22 for example) - yields, in most cases except for 'keyword' formulations, an organized retrieval list. Members actively employ in and as of an embodied orientation, a retrieval list's organization, whether it be an alphabetical or 'classmark' structure, as means of establishing the presence of known-and-sought-after items in so far as that organization tells members where the item 'should' be if it is present-within-the-catalogue. An 'attained fit' that fails to establish the presence of a known-and-sought-after item furnishes grounds for re-formulating the 'fit'. A 'successful fit' - i.e. a structurally formulated need that provides the sought-after solution to that need - yields, as an 'attained fit' yields, an organized retrieval list which is again employed orientationally to establish the presence of the known-and-sought-after item: the retrieval list displays the item's presence in and as its organization. Having established the presence-within-the-catalogue of known-and-sought-after items in and through employing and orientating to OPAC's organizational features and terrain facilities, members similarly 'call-forth' a 'baseline' display that furnishes details of the items availability.

Members thus produce and accomplish or actively establish the presence and availability of known-and-sought-after items through 'fitting' source knowledge into the catalogue via terrain facilities and elementary categorization work provide for by those facilities (OPAC's 'menu' structure: search options); through an orientational employment of retrieval lists organization; through re-formulating the 'fit' in problematic circumstances where the presence of known-and-sought-after items is not displayed, but should be, in and through traversing structural 'pathways'. Collaborations in establishing the presence of known-and-sought-after items consist in members concertedly 'working up' the re-formulation of the 'fit'. It might otherwise be said that when people are seen

'huddled around' OPAC terminals 'discussing things' in and as the task-to-hand-being-done, in contrast to "talking about the weather" for example, then it is the work of re-formulating the 'fit' that is being observed. The above description details how users produce and accomplish that phenomena on any occasion although it may also be noted that formulating the 'fit' may occasion collaborations between users and staff (see Strand 1 for details of that accomplishment).

Establishing the Existence of Unknown-but-Possibly-Suitable Items: Members establish the existence of unknown-but-possibly-suitable items in much the same way as they establish the presence of known-and-sought-after items in so much as the production and accomplishment of either type of work relies on the same terrain facilities and thus relies on the employment of the same structural means (OPAC search options and that system's constituent organizational or structural features). Actively establishing the existence of unknown-but-possibly-suitable items consists, however, in some subtley different constituents as a practiced-activity-being-done:

1) Andy: so what's the mission then
2) Joe: the mission is er . just find out as much as I can about Dada . specifically like what the roots of Dada were
3) Andy: yeah .. as in Dada *ism*
4) Joe: yeah .... so I'm going in on number eight *(subject index)*
The 'subject index' search yields an alphabetically ordered retrieval list which Joe browses and then selects the 'Dadaism' option (No. 2 on list). This yields another, randomly ordered, retrieval list of specific 'Dada' items. Joe browses this list at some length evaluating the titles, selecting 'baseline' displays of specific items in and as his evaluation of those items
5) Joe: go back a bit see if there's anything behind
Joe scrolls back up the list checking for further 'interesting' titles as he does so
6) Andy: are you looking for something specific there
7) Joe: not really . no
8) Andy: no
9) Joe: that looks like a decent book .. I'll try those two . 3 & 4 ... VLED .... VLPD .... YUPD .... try that first . number seven
Joe selects 'baseline' displays for the specified items and writes down author and classmark details on a piece of scrap paper
10) Andy: yeah
11) Joe: just go back to the list for the others ... I'll have a look for them when I get up there
Joe browses the list again; again selecting 'baseline' displays and again recording author and classmark details
12) Andy: so you're just browsing around to .. see if there's anything else there
13) Joe: yeah .. its going into expressionism now so I don't want to go into that one
14) Joe: try that Ritzer as well
Joe selects 'baseline' display, writes down author / classmark details, exists OPAC and then sets off to locate the unknown-but-now-known-possibly-suitable items

The above sequence of talk exhibits the constituent differences between the practiced activities of establishing the presence of known-and-sought-after items and establishing the existence of unknown-but-possibly-suitable items as practiced-activities-being-done. In the first instance, what occasions the latter type of search is a members concern with a 'general interest', 'broad area' or 'topic' which while 'general' (concerning Dada for example) may of-itself be quite 'specific' (concern the roots or origins of Dada for example). The problem in-the-doing of this kind of search is not one of establishing the presence of items that may or may not satisfy members information needs but rather, one of establishing whether or not items exist-within-the-catalogue that may-possibly-satisfy members information requirements. That 'possibility' is produced and accomplished on

any occasion not only in and through the employment of terrain facilities and associated organizational means but also, in and through members embodied orientation to item 'titles' and other substantive bibliographic components. Specifically, to the features of a 'titles' construction: in orientating to the features of a titles construction members attend to sub-titles in particular - which are only available on 'baseline' displays - and to the topics and / or areas the item's title / sub-title *suggestively* covers or deals with. Members orientation to other substantive bibliographic components consists in attending to the author(s) name and journal name (members attend to a journal's name or 'title' not only in the same ways as they attend a book's 'title' but also in respect of a journal's 'relevant prestige' (students for example, may select journals on the basis of their intellectual popularity or authority - the same criteria are applied by 'knowing' members to author names). Knowing members also orientate to classmark in evaluating an item's bibliographic components - classmarks tell members who are familiar with the catalogue's organization the subject area an item covers: the philosophy of Dadaism, the psychology of Dadaism, the history of Dadaism etc.

Members thus produce and accomplish or actively establish the existence of unknown-but-possibly-suitable items in and through employing terrain facilities and associated organizational means, and simultaneously utilizing the knowledge constitutive of their search 'relevancies' in and as attending embodiedly to, and evaluating, item's 'titles' and other substantive bibliographic components on the basis of specifiable criteria provided by those search relevancies and knowledge of the catalogue's organization. Collaborations in establishing the existence of unknown-but-possibly-suitable items consist in users concertedly formulating categorizable 'expressions of interest' that are intelligible in terms of the catalogue's organization in problematic circumstances - i.e. traversable articulations of the information need - and in formulating the identity of 'suggestive' items in problematic circumstances. It might again be said that when persons are seen 'huddled round' OPAC terminals 'discussing things' in and as of the task-to-hand-being-done then it is the work of formulating expressions of interest and identifying possibly suitable items that is being observed. As in the accomplishment of establishing the presence of known-and-sought-after items, establishing the existence of unknown-but-possibly-suitable items may occasion collaboration between users and staff, especially when traversed articulations of the information need fail to produce possibilities (again, see Strand 1 for details of that accomplishment).

Establishing the Whereabouts of Known and Unknown-Now-Known Search Items:

Having established the presence of known-and-sought-after items or the existence of unknown-but-possibly-suitable items, the members task to-hand is to locate those items:

63) Dave: time to go hunting eh .
Anne and Dave go to B-floor and commence the first search
64) Dave: what are we after
65) Anne: Robertson
66) Dave: what is it
67) Anne: K .
68) Dave: KDD
Anne and Dave locate the KDD section firstly by orientating to and following the generic catalogue signs displayed in the library's walkways - e.g. [SOCIOLOGY K] [PSYCHOLOGY I].After following the generic catalogue signs, Anne and Dave scan the specific contents lists on the end of the shelves - e.g. KD, KDD, KDN,. KDP .... [next to each classmark are displayed brief descriptions of the classmark content - e.g. social change, developmental sociology, crisis and violence, progrsss etc]. Having located the KDD section, Anne and Dave begin to scan the books on the shelves
69) Dave: KDD
70) Dave: can't see anything . can you
71) Anne: there's some more round here
72) Dave: they should be in alphabetical order shouldn't they
73) Anne: yeah but they're not
74) Dave: yeah
75) Anne: there's P R (inaudible) . but he's not here
76) Dave: so its not in then
77) Anne: no its not here
78) Dave: did it say it was in as well
79) Anne: well it said it was overdue
80) Dave: ah . that's the overdue one
81) Anne: yeah . hmm ... Anne reviews her reading list ...
In searching the shelves in the KDD section Anne and Dave firstly browse the items located there by classmark - e.g. KDC, KD, KD. f3, KD. s5, KDD - and then by author's last name - the books are typically arranged in alphabetical order - just as in browsing OPAC retrieval lists, Anne and Dave browse either side of where the item should be but notably, far more extensively, covering the entire contents of the non-decimal KDD section [note: the library operates on the Dewey Decimal cataloging system - items are arranged in sections, for example, in the folowing way: KDD, KDD 1. KDD 2, KDD 3, and more complexly, KDD 1. a2, KDD 2. b3, KDD 3. c4 ...... ; within these categories items are typically arranged by author's last name in alphabetical order]
82) Anne: KBK
Anne and Dave locate the KBK section as above and browse the shelves accordingly
83) Dave: who's this one .
84) Anne: its er . Wilhelm
85) Dave: Wilhem
86) Anne: this is supposed to be here (inaudible)
87) Dave: right ...
Anne and Dave browse the whole section
88) Dave: that's half the problem isn't it . people take them away and stick them somewhere else
Anne and Dave can't find the item so they abandon the search
89) Dave: what's next .
90) Anne: hmm ... Anne reviews reading list ... journal
91) Dave: journals
92) Anne: W6
W6 is on C-floor; Anne and Dave go upstairs locating the section as before - this time they are looking for the European Journal of Communication
93) Dave: W
94) Anne: W6
Anne quickly scans the shelf picking up a journal which also begins to scan
95) Dave: got it .
96) Anne: no
Anne replaces the journal and the two then begin to browse the entire W6 section
97) Dave: you'd think it would be here somewhere
Anne picks up a small serials catalogue attached to the end of one of the shelfs in the section, the catalogue lists journals and there location in the library ; Anne scans the catalogue
98) Dave: got it .
99) Anne: journal of communication . might be this one
Anne shows Dave the catalogue, pointing to the item
100) Dave: could be . its not listed is it
Dave means that the item isn't listed by its proper name

101) Anne: (inaudible)
Anne browses the section again, locates the 'journal of communication' and scans it
102) Anne: no ... Anne replaces the journal ... okay
Anne goes over to a nearby librarian who is reshelving books
103) Anne: excuse me . can you tell me where the european journal of communication is . it ought to be at W6
104) Librarian: W6 .
105) Anne: yeah its here but its not .
106) Librarian: was it just journal of communication
107) Anne: definetly european journal wasn't it
108) Dave: yeah
109) Anne: (inaudible) it says european
Anne shows the librarian the reading list
110) Librarian: where have you got the classification number from
111) Anne: the computer
the librarian begins to browse the section shelves with Anne
112) Librarian: there's journal of communication there .. I don't know if that's what you're looking for
113) Anne: no
the librarian and Anne continue to browse the section shelves for a time period of approximately two minutes
114) Librarian: what I suggest you do is ask at the serials office .. okay . its a title you can't find
115) Anne: okay
116) Librarian: check the computer again just to be sure its W6
117) Anne: okay
118) Dave: thanks
the librarian returns to her work
119) Anne: lets go to R6
120) Anne: this is the millenium journal of international studies
121) Dave: journal of international studies
122) Anne: millenium
Anne and Dave go to the section and browse the shelves
123) Dave: got it ... is it
124) Anne: yes ... photocopy it
125) Anne: I can't take it out so I'll have to photocopy it
the journal is not available on loan
126) Dave: yeah
Anne takes the journal to the nearest photocopier
127) Dave: what about the other one . will you bother with it or .
128) Anne: the one I couldn't find .
129) Dave: yeah
130) Anne: I don't think she's talking about the same thing . cos its a european journal and I don't think they have it here
131) Dave: right
132) Anne: and because its available from the tutor to borrow
133) Dave: yeah .. you'll get a copy off him then .
134) Anne: yeah

This sequence of talk 'makes visible' in fine detail the 'real time, real world' work productive of the accomplishment of locating search items in and as of that practiced-activity-being-done. Locating items consists in navigating the physical catalogue. Like the 'electronic' catalogue, the physical catalogue is an organized or orderly entity and just as members orientate to and employ the orderly features of the electronic catalogue in-order-to-do, and thus do, presence and possibility work, it is in and through orientating to and employing the orderly features of the physical catalogue that members routinely navigate and reflexively locate search items. The primary organizational element employed by members in locating search items is a required item's classmark which is typically

furnished by a prior OPAC search[6]. Classmarks indicate to members just which section of the physical catalogue an item is 'placed' within. The use of classmarks as navigational / locational devices trades on a whole host or collection of socially organized artefacts. The work being done in utterances 68 - 69 shows that the use of classmarks as locational devices consists in the employment of generic catalogue signs (which are displayed above the walkways of the fieldwork library). The use of generic catalogue signs presupposes that members have located or are otherwise 'in' the part of the physical catalogue within which the required classmark section is located. OPAC furnishes floor details (A-floor, B-floor, C-floor etc); it does not, however, furnish details as to just where the classmark section is located. Establishing just where a classmark section 'is' is typically accomplished in and through reading the floor-plans displayed at the entrance to each floor. Members familiar with classmark 'layout' obviously go straight to the required section, floor-plans are nevertheless employed as problem-solving resources by familiar and unfamiliar members alike when they encounter 'novel' locational situations. Having located the part of the physical catalogue within in which the required classmark section is located, members then orientate to the contents lists displayed on the flanks of section shelves. These lists detail the classmarks and associated subject areas contained in *this* part of the section and are employed by members as navigational 'sign-posts' providing for the 'narrowing down' of the search and thus or thereby the location of the required search item. Having thus located the required part of the catalogue and the required section within that part of the catalogue, members 'scan' the section shelves looking for the classmark in question. Members locate the required clasmark in active relation to 'neighbouring' classmarks - i.e. they employ the classmarks displayed in *that* section, and specifically those classmarks' alphabetical and numerical organization, as navigational 'sign-posts' providing for the further 'narrowing' of the search. When the required classmark is located, members 'scan' the items there 'placed'. Placed items are organized both by classmark and alphabetically by author's last name[7]. In scanning placed items members orientate firstly to classmark in order to locate the 'specific place' (e.g. KDD 3. c4) and then to the organization of items there-placed by author's last name, employing that organization to locate the required search item. It is not an infrequent occurrence for search items to be 'elsewhere' - i.e. to be replaced randomly by other members, to be in-

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[6] Again there are exceptions, namely occasioned by members who are using 'reference' books and are familiar with the catalogue's organization and who can, therefore, go straight to the required section. Some reading lists also provide item classmark's.

[7] Items are sometimes ordered alphabetically by title rather than author's last name - when this is the case the item is marked with a red spot.

use by other members, to be 'placed' on re-shelving trolleys, to be hidden. Members first course of action in solving this problem is, typically, to scan the contents of the whole classmark. If this is unsuccessful members may abandon the search or alternatively, find some other means of solving the locational problem. This may be accomplished in and through employing organizational resources to hand (section catalogues for example) to 'check navigational co-ordinates' - i.e. verify that the right classmark is being sought-after; returning to OPAC to 'check navigational co-ordinates'; collaborating with other users in formulating solutions to locational problems (such collaborations may be co-searcher or user to-hand and trade on details of prior OPAC searches and organizational knowledge); collaborating with staff to-hand in locating the search item or formulating candidate solutions to locational problems; formulating solutions to locational problems with Service Desk and / or other members of staff.

Members thus produce and accomplish or actively establish the location of known and unknown-now-known search items in and through orientating to and employing: floor-plans; generic catalogue signs; section contents lists; catalogue sections classmark organization; 'placed' items alphabetical organization by author's last name; doing 'broad scans' of classmark sections in problematic circumstances; using organizational artefacts to-hand to check navigational co-ordinates; using OPAC to check navigational co-ordinates; formulating solutions to locational problems with other users; formulating solutions to locational problems with members of staff;   formulating solutions to locational problems consists in utilizing details of prior OPAC searches and members 'professional' and / or 'familiar' organizational knowledge (see Strand 1 for details of the resoltion of locational problems in and as the accomplishment of Service Desk work).

Accomplishing Information Retrieval - Establishing Whether or Not Located Items Will Satisfy Information Needs: Having established the presence of known-and-sought-after items or the existence of unknown-but-possibly-suitable items and having located those items, the task to-hand then becomes one of establishing whether or not those located materials will satisfy information requirements. Just as locating items is a socially organized activity and accomplishment, then so to is the active establishment of the satisfaction or non-satisfaction of information requirements. The following sequence of talk details some of the orderly features of that activity in and as of a practiced-activity-being-done:

1) Jack: right . what are you looking for
2) Craig: er . I'm looking for stuff for my employment law seminar
3) Jack: yeah .

4) Craig: just like . read some cases and things and then I'm going to try and er . get on the er . law computer
5) Jack: yeah .
6) Craig: and try and get some articles in legal journals about the criminal justice and public order act
7) Jack: right
Craig and Jack go upstairs to B-floor, Craig leads the way to the law section, specifically, the legal reference books section
8) Jack: so . you know the stuff up here . you know what you're after already or .
9) Craig: more or less yeah
10) Jack: yeah
11) Craig: (inaudible) (tape interference - library construction work)
Craig explains that the section contains standard reference books citing legal cases. The seminar reading list provides Craig with the title of the cases to be read, the title of the reference books those cases are to be found in, the classmark of the reference books, and the questions these items are to used to answer. Craig locates the required section by classmark and browses the sections contents by title; upon identifying the required reference books Craig browses the index of each one respectively in order to locate the specified cases. Craig then briefly and respectively browses each case. Having located and identified the required cases, Craig takes the reference books over to the nearest available reading desk, takes out pen and paper and begins to read the front page of the first case. In doing this Craig explains that this type of legal reference book has a specific kind of 'layout' starting with brief summaries or abstracts describing 'the facts' of the case and 'the decision' which are followed by a more detailed description of the case itself. Craig reads 'the facts' and 'the decision' of each case and parts of the more detailed case descriptions, writing verbatim quotes and references down as he does so. Craig explains that the more detailed case description contains references to other "relevant" cases in which the legal precedents outlined in 'the decision' have been used
12) Craig: these things here give like relevant cases . so I can go back and check these cases and see if there's anything in them
Having retrieved the specific information he requires from the specified reference books in the form of verbatim quotes, Craig commences a new search for the "relevant" cases. Again, he does not perform an OPAC search but instead goes back to the reference section and searches by title, explaining as he does so that he doesn't need to use OPAC because he uses these 'a lot' and is thus or thereby pretty 'familiar' with the section's layout.
13) Jack: so things like this are like a general sort of reference than er .
14) Craig: sorry .
15) Jack: these things were looking for . there more like general reference .
16) Craig: yeah . yeah
17) Craig: you've got ... *Craig picks up a reference book, glances at the details he has written down and then browses the index* ... the er . actual substances case and its decision . and also you have er . where that's actually been used
18) Jack: cases its actually been used in .
19) Craig: yeah
20) Jack: yeah .
21) Craig: ... *has selected and is now browsing a case in the reference book* ... so . there very helpful these
22) Craig: right
Craig closes the book, keeps it in hand and carry's on searching for the other "relevant" cases; again he searches by title and on locating the required item browses the index and case. Craig then takes the reference books (No. 2) back to the reading desk. This time Craig only writes verbatim quotes down. He then returns the books to the shelves and commences a new search for a reference book cited on the seminar reading list. Again no OPAC search is performed - the reading list provides the search item's classmark - and again Craig browses by title. This time the reference book cannot be located, however, in browsing the section shelves Craig retrieves and browses items with a similar title. Craig decides that the someone must be using the book and that he will look for it later after doing some research for his dissertation on the criminal justice and public order act.

Perhaps the most striking feature of the above talk is that navigating doesn't stop for members in locating required search items. Having located search items members routinely orientate to and employ item indexes and contents lists in-order-to-locate-satisfying-materials. A search item's organization provides[8], in the first instance, and is used for identifying materials that [may possibly] satisfy the information requirement. In cases where the information requirement is not rigidly specified, item indexes and contents lists provide titles, author names and topic areas and thus provide members with utilizable - and in the doing utilized - resources for establishing whether or not the-material-in-hand-may-possibly-satisfy the information requirement. Members evaluate

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[8] And it may be noted that we are here talking of a ubiquitous organization with regards to a book's, journal's, paper's etc 'layout'.

the possibility of satisfying materials and thus accomplish information retrieval in and through orientating to and employing thus located and identified search material's internal organizational features. Specifically, 'abstracts' - the reading of which warrants, on the basis of current search 'relevancies' (answering specific seminar questions, finding out about the origins of Dada etc) further inspection of that material - and 'section headings' - which warrant the continued inspection of the material in-hand on the basis of 'suggestive' critera. Having 'narrowed' the search 'down' to inspecting section headings members typically 'scan' the texts presented there-under. In doing 'scanning' members attend to 'relevant' keywords, phrases, names, references[9] etc - members rarely read the text thoroughly in the first instance: 'scanning' provides for thorough reading and in so doing provides for retrieval.

Members thus produce and accomplish or actively establish whether or not located items will satisfy information requirements in and through orientating to and routinely employing item indexes and contents lists to indentify [possibly] satisfying materials by using titles, sub-titles, author names and topic areas as means of establishing the prima facie possibility of the material in-hand satisfying the information requirement; through orientating to and employing the material's in-hand internal organizational components, specifically the material's 'abstract' and 'section headings' as means of further establishing, through evaluating the adequacy of that material as 'suggested' by those components in relation to the search 'relevancies', whether or not the-material-in-hand-may-well-satisfy the information requirement; through 'scanning' texts under 'relevant' section headings in order to confirm the possibility of the material in-hand satisfying the information requirement . Collaborations in establishing whether or not located items / materials will satisfy information needs consist in formulating 'relevancies' and 'satisfactions'. This work often occurs between co-searchers although it may occasion, in problematic circumstances, collaborations with members of staff (see Strand 1). Notably, members employ, both in doing individual or collaborative searches with other users and on occasion members of staff (specifically subject librarians), located items as artefacts for 'working up' formulations of relevancy and satisfaction: 'this is okay . but what I really wanted was something more to do with ....', 'that isn't bad but . er . we need to find something that tells us more about ...', 'this is useless . it tells us nothing about ...' and such like are frequently heard comments in the library - they occur in the course of the work of trying to find satisfying materials, are a product of doing that

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[9] References provide for the 'refinement' of the search and thus or thereby, in their employment, for the satisfaction of the information requirement.

work (which may go on for days, even weeks, due to the immediacy of requirements satisfaction or constraints of time or other contingencies) and represent problems which are often mundanely resolved in and through using the artefacts that 'aren't bad', 'good but', 'useless' etc to specify criteria of relevancy and satisfaction and thereby 'refine' the search in and through 'working up' increasingly more precise formulations of the information need.

Information Retrieval - The Occasioned Corpus: Ethnographic findings suggest that the satisfaction of information requirements is a profoundly socially organized accomplishment. This section formally delineates the details of that accomplishment on the basis of observations and descriptions of that practiced-activity-being-done. In other words, what is here provided is a productional account of information retrieval's 'real time, real world' achievement by any member in just-this-library-everywhere in so far as *that* library consists in an organized catalogue and some kind of indexing system (which is just what OPAC's essentially are). Its hard to conceive of a 'library' anywhere as otherwise really, hence the claim to the ubiquity of practice although the claim itself stands not on the grounds of some conception but rather, on the basis of documenting the mundane, day-in-day-out, resolution of a practical problem: finding and retrieving information from within a highly organized entity with only the affordances to-hand - an indexing system and the other constituent elements of that organizational thing. What follows then is a formal account of how members routinely resolve that problematic in-and-as-of-the-doing.   In approaching the library for purposes of information retrieval, ethnographic findings suggest that members have two fundamental types or kinds of information needs or requirements the wish to satisfy: on the one hand members know exactly the materials that will satisfy their information requirements, and on the other hand, members don't know exactly what materials will satisfy their information requirements. With regards to the latter, this is not to say that members do not know their information requirements, on the contrary they do and quite specifiably so, what they don't know is just what materials will satisfy those requirements. These two types of searches are accomplished in distinctly albeit subtley different ways.

In the case of retrieving 'known' items or materials the initial problem to be solved is one of establishing the presence within the catalogue of the required item. Members routinely accomplish this in and through using the library's on-line catalogue. In using the on-line catalogue to this end members employ the OPAC menu's 'search options' as elementary categorization devices - the item they seek can be specified as a 'title', an 'author', a unique 'number' etc - which allow or afford members to present

their information requirements to the catalogue in terms that are intelligible within the catalogue's organization. The problem here is one of making, in the active sense of the word, the information requirement 'fit' into one of those organizational categories so as to produce a 'successful result' - i.e. so that the presence of the required item may be established from the systemic products furnished on the basis of the formulated 'fit'. While it is 'simple' to categorize information requirements in so much as one has a limited number of 'options' to-hand with which to accomplish that work, categorizing information requirements is nevertheless frequently problematic and thereby becomes 'complex'. It is 'complex' precisely because the on-line catalogue's organization or structure affords only 'limited' categorizations - the sought after item is quite literally a 'title', an 'author', a unique 'number' etc - and the system operates rigidly within those limits[10]. The system is, furthermore and from the members perspective, all too frequently incoherent - an item may be found by doing a 'title' search but not by doing an 'author-title' search for example. In so much as members do resolve the problems prompted by the system's 'limits' and structural 'incoherencies' then they do so through traversing the 'options' or structural 'pathways' in re-formulating the 'fit'. Members may re-formulate the 'fit' through 'pathway' traversal several times in problematic circumstances - i.e. members use the sytem's structural 'pathways' to re-formulate the 'fit' when a sucessful 'result' cannot be accomplished - and this work is frequently concertedly or collaboratively accomplished; in the first instance between users and failing that, in the second instance between users and staff (see Strand 1 for details of the latters accomplishment). Having formulated an 'acceptable fit' yielding a 'successful result' members establish the presence of 'known' items by orientating to and employing the systems indexing structure. This structure furnishes orderly 'lists' of catalogued items[11] which *display* the required items presence or absence within the catalogue. From this point members can 'select' details of the required item's availability and organizational artefacts providing for its location.

OPAC's employment in seeking 'known' items contrasts with its employment in seeking 'unknown' items. Members still employ the system's structural pathways in formulating 'acceptable fits'. However, in so much as this kind of search is relatively unfocused though nonetheless specifiably 'driven' then it entails a greater attention to and utilization of the system's organizational or structural components. The task to be

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[10] In many respects the system's 'simplicity' is its strength, however, in problematic circumstances that 'simplicity' becomes its weakness in so much as its 'structure' severely constrains the formulation of the 'fit'.

[11] With the exception of 'keyword' formulations in the fieldwork library.

accomplished here is one of establishing the existence within the catalogue of items or materials that may possibly satisfy the information requirement. Having formulated 'acceptable fits' members routinely accomplish this task by 'selecting' items whose titles 'sound relevant' to the satisfaction of their information requirements. In selecting 'relevant' items members 'call forth' the bibliographic details of items so specified. An item's bibliographic details furnish members with artefacts with which to further 'evaluate' the relavency of the selected item and thus to further establish the 'possibility' of the item satisfying the information requirement. Members use item sub-titles, author names and classmarks in order to evaluate that possibility. The evaluative properties of those bibliographic components consist, respectively, in suggested areas or topics covered; intellectual popularity or authority provided; the perspective from which the suggested area or topic covered is presented. In selecting an item's bibliographic details members also establish details of availability and location. Members frequently collaborate in formulating categorizable articulations of search relevancies, particularly in formulating traversable articulations of search relevancies in problematic circumstances, and in establishing the 'possibility' of a selected item satisfying the information requirement. Collaborations may be user-to-user or user-to-staff depending, notably, on degrees of intractability.

Having established the presence of 'known' search items and the existence of 'unknown' search items, and furthermore established the availability of those items and details of their whereabouts within the physical catalogue, the task to-hand is one of actually locating the required items. This task is routinely accomplished in and through the employment of classmarks as navigational 'sign-posts'. The use of classmarks as navigational sign-posts trades on other organizationally provided and constitutive navigational resources. Specifically, members must be able to locate the part of the library within which the classmark section is located and they must be able to do so routinely, unproblematically or relatively so. To this end members orientate to and employ first the item's floor details as provided by OPAC and then library floor-plans displaying section arrangements by diagram, first case class marker and subject [B-floor - West Wing: K Sociology / I Psychology etc]. Members familiar with the library 'layout' need not orientate to floor-plans in order to locate the relevant parts of the library within which the sought after classmark section is located, however, as with unfamiliar members, familiar members routinely employ floor-plans as first-step-locational-devices in novel circumstances. Having located the relevant part of the library within which the required section is located, members must then locate the required section itself. This is achieved in and through orientating to generic catalogue signs displaying the subject area and first

case class marker [Sociology K]. Having located the specific section required, members employ the first three case markers constitutive of the sought after item's classmark in conjunction with section contents lists which display shelf contents correspondingly and by associated subject [KD: Social Change / KDD Developmental Sociology / KDN Crisis and Violence etc] to 'narrow down' the navigational area. Having narrowed the navigational area down to a finite number of shelves within a classmark section and having accordingly located the shelves 'holding' the required classmark itself, members then employ the classmark in full to navigate the area within the classmark where the required item is located [KDD $\Rightarrow$ KDD. c3]. Members then orientate to and employ the alphabetical arrangement of items there 'placed' to locate the required item itself. This may sound like an idealized account of just how members locate search items - this is not the case however for even members familiar with specific classmark sections and specific areas within those sections orientate in practice to section contents lists and the other organizational features of the physical catalogue's layout in locating 'placed' items and it may be noted that members - both staff and users - frequently collaborate in showing or 'teaching' each other how to navigate the system and in formulating candidate solutions to locational problems. The formulation of candidate solutions to locational problems or problems arising out of locational work consists in the concerted elictation-provision and utilization of prior - usually OPAC based - search details and members 'familiar' and 'professional' organizational knowledge.

Item-in-hand, the next task to be accomplished is that of establishing whether or not the located material will satisfy the information requirement - and if it doesn't, either supplementing that material or finding solutions that will result in the satisfaction of the information requirement and thus provide for information retrieval. Members accomplish this task in the first instance - and in so doing locate specific 'known' materials furnished by the item in-hand in cases where the item is effectively a 'compendium' - by employing the item's index or contents list. In orientating to an item's index or contents list in cases where the item currently provides possibilities and possibilities only and whether a 'compendium' or not, members orientate to and employ the titles, sub-titles, suggested topics covered and author names thereby furnished in establishing whether or not the prima facie possibility in-hand 'may well' satisfy the information requirement. That possibility is further clarified and concretely established, through 'selecting', on the aforementioned basis, items that 'may well do'. In selecting such an item members orientate to and employ as 'evalutive' devices, the item's 'abstract' and 'section headings'. 'Abstracts', read in relation to the search 'relevancies', provide for the further inspection of the material in-hand. That 'further inspection' consists in reading, again in

relation to the search relevancies, the item's 'section headings' which furnish further 'suggestive' criteria warranting or not warranting continued inspection of the material in-hand. Members confirm the possibility of the material in-hand satisfying the information requirement through 'scanning' the texts presented under 'relevant' section headings and in accomplishing the confirmation of the possibility in-hand and thereby retrieving information satisfying the information requirement, members attend to 'relevant' keywords, phrases, names, references etc. Members routinely supplement materials providing for the satisfaction of information requirements and otherwise formulate solutions to information requirement problems through orientating to and employing references and item bibliographies in locating other 'possible' materials. Collaborations in accomplishing information retrieval consist in formulating 'relevancies' and 'satisfactions' which are 'worked up' incrementally in and through using located items as artefacts and / or resources for specifying criteria of 'relevance' and 'satisfaction' and thus for 'refining' the search in and through the concerted formulation of increasingly more precise articulations of the information need[12].

Information Retrieval - *The Ordinary, Artful Practice*: As stated in the abstract of this strand of the report, the abiding concern here-in has been to 'make visible' the *ways* in which users locate and retrieve materials that satisfy their information requirements. Our concern has been limited to the use of on-line public access catalogues in that achievement. What follows is a summary of that achievement as provided by ethnomethodologically-informed ethnography and construed analytically as 'systems navigation' towards explicating the 'real time' accomplishment of identifying, locating and retrieving search items or materials. It is furthermore and thereby, a summary of that achievement in and as of the 'real world workings' of a practiced-activity-being-done. Members information retrieval practices thus consist in:

♦ 'fitting' the information requirement into the on-line catalogue so as to make that requirement intelligible in terms of the catalogue's organization
♦ identifying satisfying items as provided by OPAC
♦ locating identified items
♦ confirming the 'satisfying' indentity of located materials

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[12] It may be noted that individual users satisfy their information requirements in the same way - i.e. by using located artefacts to 'work up' increasingly precise formulations of the information need.

The above practices are accomplished respectively in and through:

♦ categorizing information requirements in terms of OPAC 'search options'
♦ evaluating catalogue items bibliographic components as furnished by OPAC
♦ employing cataloguing artefacts provided by OPAC and other constituent features of the physical catalogue
♦ using located search items internal organizational components to establish identity and thereby retrieve 'satisfying' items

These practical accomplishments respectively consist in:

♦ using OPAC 'search options' as traversable structural 'pathways' affording the formulation and re-formulation of the 'fit'
♦ using item titles / sub-titles / author names / classmarks as evaluative devices 'suggesting' satisfactoriness
♦ using floor-plans / generic catalogue signs / section contents lists / classmarks / 'placed' items alphabetical organization as artefacts for locating search items
♦ using located item indexes / contents lists / abstracts / section headings / scan techniques as means of establishing the 'satisfactoriness' of items in-hand

Collaborations in accomplishing information retrieval consist in:

♦ formulating categorizable articulations of search 'relevancies' or the information need and thus or thereby formulating the 'fit'
♦ establishing the identity of 'possibly' suitable items
♦ showing members how to navigate the catalogue
♦ formulating candidate solutions to problems arising out of locational work
♦ formulating the identity of 'satisfying' materials
♦ formulating 'relevancies' and 'satisfactions'

The next strand of this report 'makes visible' the details of searchings* local production in and as of the 'lived work' of the CD-ROM / BIDS workstation.

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