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Exploratory Search - How Search Behav. changes as Search becomes difficult.

- 23 users lab study; obsv tested with 179 past exp. to do 100 tasks completing an avg of 22.3 tasks
- srch difficult → diverse queries issued
- use of advanced operators
- longer time on srch page (revisits)

* Notable / observable changes in user behavior on search ⇒ give up; body lang chgs (frown, lean closer to monitor, ...)

* successful v/s unsuccessful srch by Expert - Novice users;

→ search logs analysed to understand patterns

from a failed srch v/s succ. search

:- avg # (Query turns) = $2.35 - 2.6 / \text{Query}$

→ also 2.93 (iPhones / qth)

→ Most x simple keyword; only 10% use adv. ops;

→ adv ops used more in US than Europe;

→ Most adv ops do not increase precision. (Query)

→ 7.78 sec spent on res. page (more in diff srch)

→ Web (srch) sessions x short - 2 avg / session

→ 2 users: Explorer v/s Navigator type.

→ 2 Wers: Explorer
Highly variable behavior
Complex sense sub topics

↓
Anxious, revisit domain.
Well defined fact finding
tasks

→ Expert strategies r Those give higher success

↳ Spend lesser time than novice.

↳ reformulate queries, use query format tools

→ depth first search / bottom up

Experts:- 5 yrs / Comp Waze; 4.5 yrs Web use;
5 hrs brown / week, . . .

* fact finding tasks - well defined / systematic behavior
— successful search - small & refinements

* Random behavior, random refinement in less successful search.

* adv users query less freq in a session

→ Compose longer queries

→ click the result list further

→ They are more directed in behavior

→ Search trails & shorter

→ More successful - visited more rel. pg.

Difficult tasks:- Dave Matthews Band - Virginia Stud.

* — outside Charlottesville in mountain

? St Name [difficult query]

* — Names of model who fell in prairie fall show

* Sturd by Me - based on Stephen King story [diff name]
what is it (easy one)

what is it (easy - 1)
⑧ UNSUCCESSFUL SEARCH :- * users formulated more
question based queries * adv. ops more often
* longer time on search pages - on avg & max time
in search session * longest time in search task middle
(succ. searches) * longest query towards search session end
* larger prop. of task time spent on results page.

* On errors less likely in open ended goal tasks
* specific search - less frustration

→ on failing - only refinement is less systematic
slower exhaustive searching observed with
failed searches.

→ scroll up/down - frustrated user; landing page
in random fashion (no intent to read page)
→ persisting early visited pages - disp. user