How much to personalize?

The 5 Do’s and the 5 Don’t’s of Personalization
PersDB09@VLDB panel

Evaggelia Pitoura
Department of Computer Science
University of Ioannina, Greece

http://dmod.cs.uoi.gr
The 5 Do’s and the 5 Don't’s of Personalization

My background

For the past 3-4 years worked on preference models and how to integrate user preferences along with other forms of relevance ranking in query answering

- Context-dependent preference model (location among others) [ICDE07, EDBT08]
- Qualitative preference models along
  - Keyword queries
  - Ranked information dissemination [DEBS09]

My 5 minutes

Rules of what to do and not do when it comes to personalization
Do #1: Personalize when there is “best-effort” semantics involved

Personalization is useful when

- There are too much data, too many users, choices
- Limited resources (space and time)

Optimization problem: maximize relevance given a set of constraints
The 5 Do’s and the 5 Don’t’s of Personalization

Do #2: Go beyond relevance

Beyond predicted relevance, user satisfaction:

- Diversity (eg overlap)
- Coverage
Do #3: EXPLAIN: Provide some justification about the result

It is easier to judge positively a search result/recommendation/query ranking when there is some explanation of its derivation

Why this is good for them

“people which bough this … also bought this”

highlighted matched search terms in search engine snippet

the deduction steps
The 5 Do’s and the 5 Don't’s of Personalization

Do #4: Build trust

People may be skeptical/reluctant especially in terms of privacy
The 5 Do's and the 5 Don't's of Personalization

Do #5: ADJUST: be dynamic and adaptive

Interests, trends change -> able to follow
E.g., monitor, use feedback
The 5 Do’s and the 5 Don't’s of Personalization

Don’t #1: Don’t be overlay proactive

Too much advertisements, too many recommendations, etc

It is annoying!
Don’t #2: Do not be too specific - leave space for the unknown

In general, people prefer things they know

Difficulty to differentiate between “I do not like A” — “I do not know whether I like A” — “I do not know A exists”

Automatic (preference learning/ mining – recommendation: new users or items)

Add some “random” choices
Don’t #3: Don’t over-generalize

It is difficult to predict – many factors affect preferences
The 5 Do’s and the 5 Don’t’s of Personalization

Don’t #4: Don’t add too many features

Or KISS (Keep It Simple Stupid)

The associated effort by the user should be kept at a minimum

- Setting tuning parameters
- Expressing preferences
- Providing feedback
The 5 Do’s and the 5 Don't’s of Personalization

Don’t #5: Do not trust the user

“Everybody lies”

Sometimes unintentionally
The 5 Do’s and the 5 Don't’s of Personalization

Personalization is a fact of life

"Welcome to the world. Everyone's different, everyone gets treated
different. You try fighting that, you end up dying of TB." [1]

Thank You

[1] Dr House, House MD, Episode #204