

GRAN SASSO SCIENCE INSTITUTE

Focus Group: Traditional Methods on developing Recommender Systems

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NB: This interview will be audio recorded for later analysis.



Goal and Background

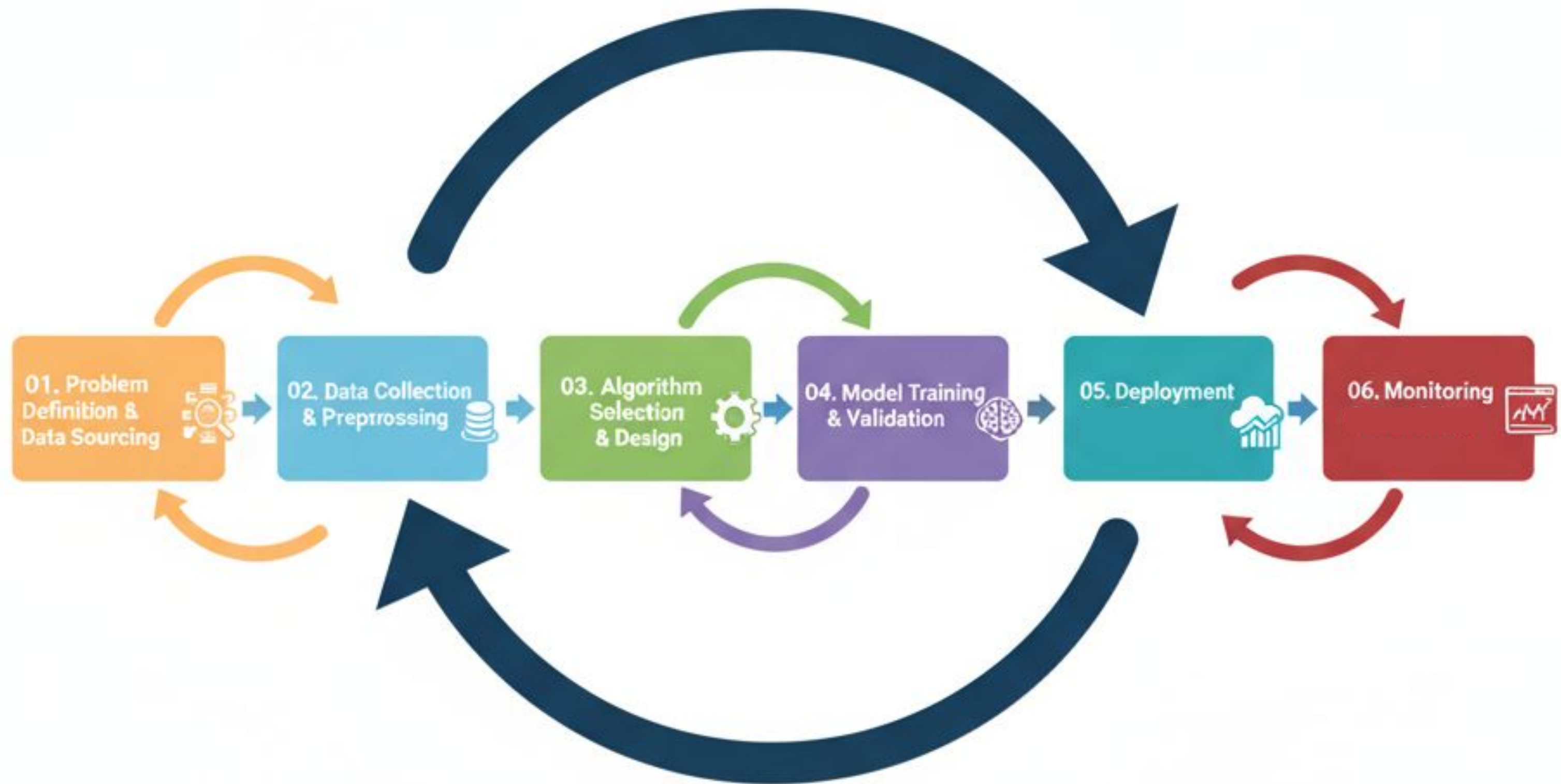


What are recommender systems?

“Recommender systems are software tools and techniques providing suggestions for items to be of use to a user. The suggestions provided by a recommender system are aimed at supporting their users in various decision-making processes, such as what items to buy, what music to listen, or what news to read. Recommender systems are valuable means for online users to cope with information overload and help them make better choices.” (Ricci et al.,2022)



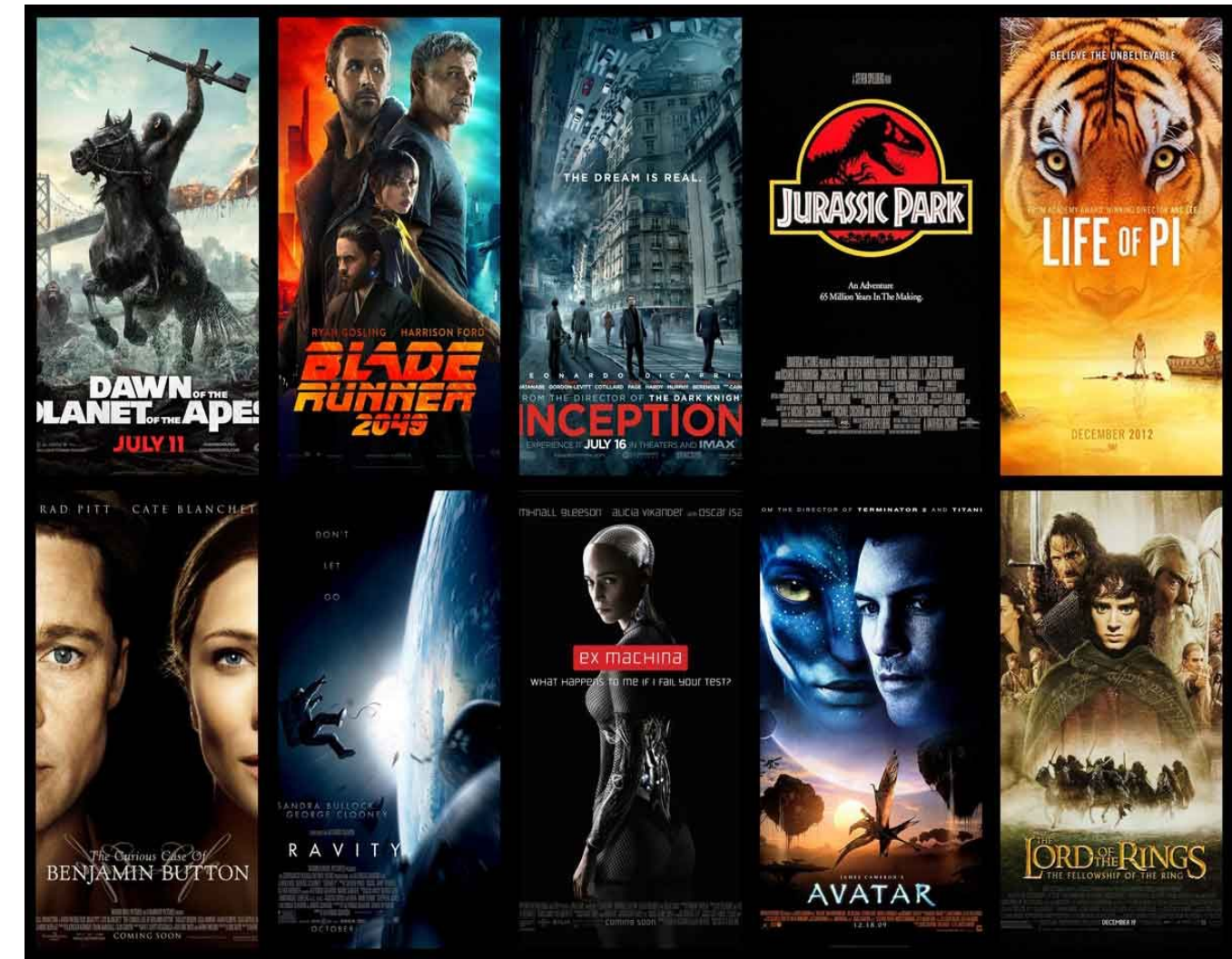
General Pipeline



Motivation



Weather forecast, trail difficulty, trail conditions.



Genres, length, parental guidance.



Are recommender systems configurable?

Approach	Algorithm	Data Type	Outcomes	Configuration support
Y. Zhang et al. [17]	HB	H	PR	User profile and context-aware data
M. Ummesalma; C. Yashiga [18]	HB	H	PR	User preferences and POIs
J. Neidhardt et al. [19]	HB	H	PR	User profile
M. E. B. H. Kbaier et al. [20]	HB	H	PR	User profile
A. Moreno et al. [21]	HB	H	PR	User preferences, demographic info, and context-aware data
M. Kolahkaj et al. [22]	HB	RT	PR	User preferences and POIs
R. Logesh et al. [23]	HB	H	PR	User preferences
A. Noorian et al. [16]	HB	H	IT	User preferences
L. Esmaeili [24]	HB	H	IT	User preferences
T. D. Pessemier et al. [25]	HB	H	PR	User preferences
R. Logesh et al. [26]	HB	H	PR	User preferences
I. Y. Choi et al. [27]	HB	H	IT	User profile and preferences
K. I. Kotsopoulos et al. [28]	HB	RT	IT	User preferences, itineraries, and POIs
Q. Gu et al. [29]	HB	H	PR	User preferences and flight features
J. Xu et al. [30]	NN	RT	IT	Users (profile, itinerary, and behavior sequence) and POIs
J. Ye et al. [31]	NN	H	PR	User preferences and POIs
L. Chen et al. [32]	NN	RT	PR	User preferences
L. Chen et al. [33]	NN	H	PR	User preferences
G. Zhu et al. [34]	NN	H	PR	User preferences
L. Chen et al. [35]	OP	RT	PR	User preferences
C. Tan et al. [36]	OP	RT	IT	User features
J. L. Sarkar et al. [37]	OP	H	IT	User preferences and POIs
E. Streviniotis; G. Chalkiadakis [38]	OP	H	PR	User and POIs
F. Teklemicael et al. [39]	CF	H	PR	User preferences
Q. Miao et al. [40]	CF	H	PR	Users and POIs
F. Leal et al. [41]	CF	H	PR	User profile
Q. Qi et al. [42]	CF	H	PR	User preferences, social attributes, and consumption behavior
S. Missaoui et al. [43]	CB	H	PR	User preferences
Z. Bahramian; R. Abbaspoura [44]	CB	H	PR	User profile
M. Figueredo et al. [45]	SB	H	PR	User preferences
L. Ravi et al. [46]	SB	H	PR	User profile and POIs
J. Shen et al. [47]	OTHER	H	PR	User preferences
X. Shao et al. [48]	OTHER	H	PR	User preferences
C. Bin et al. [49]	OTHER	H	PR	User preferences and POIs
S. Nikookar et al. [50]	OTHER	H	IT	User preferences and POIs
T. Alenezi; L. Hirtle [51]	OTHER	RT	PR	User preferences, POIs
H. Chiang; T. Huang [52]	OTHER	RT	PR	User preferences and POIs
I. Benouaret; D. Lenne [53]	OTHER	H	PR	User preferences and POIs
A. Gehlot; R. Singh [54]	OTHER	H	IT	User preferences
T. Huang et al. [55]	OTHER	H	IT	User preferences and itineraries



Practical Session



Discussion



Question 1

Have you ever developed an RS of any type?



Question 2

Do you think the development of recommender systems could be automated or automatically generated? If so, which parts, specifically?



Question 3

What challenges have you faced while developing recommender systems using traditional methods?



Question 5

Do you think that traditional methods to develop RSs offer flexibility when applying to other domains?



Question 4

Do you think that the time spent is cost-effective? If I asked you to switch to another domain, how much work do you think you would need to redo repetitively?



Question 5

What are some common mistakes that may occur while developing recommender systems using traditional methods?



Question 6

In your opinion, what are some potential benefits of using traditional methods, and what are some potential drawbacks?



Question 5

Would you prefer to use traditional methods, such as manual feature engineering and model selection, over other techniques like MDE when developing a RS?



Thank you!

Any comments, additions, insights, questions?



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