Recent Feedback on Recommender System Evaluation

April 24th, 2018

Overall Intervention Evaluation

*By the end of March
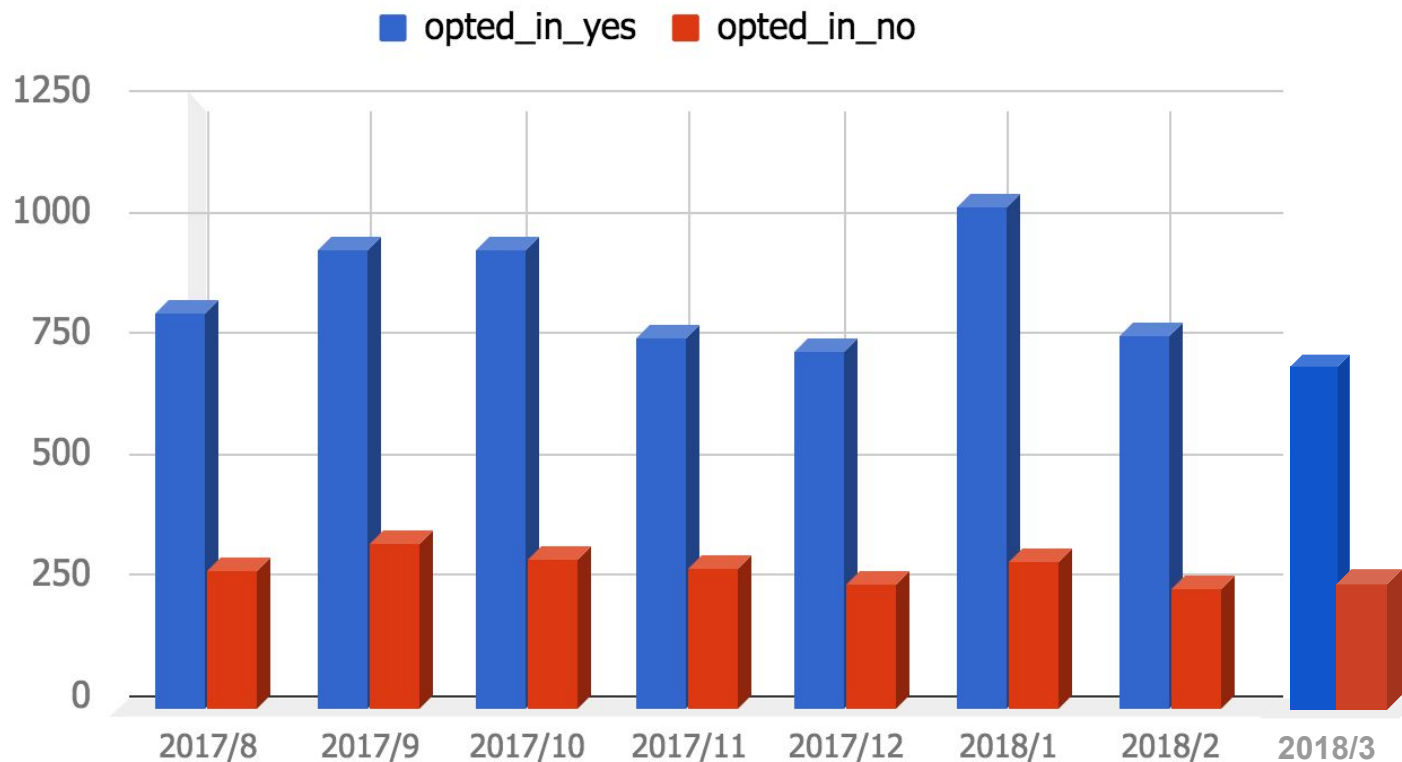
Overall Opt-in Situation (after 8/2017)

User Type	Opted in	# Users
New Users	NO	2262
New Users	YES	6615
Old Users*	NO	458
Old Users*	YES	558

*: Old users who have updated their profiles
CMU recommender went live on Aug 7th, 2017, so old users are defined as people who registered for CSN before Aug 7th, 2017

About a 75% Opt-in Rate for New Users Over Time

Overall Deployment Evaluation

Recommender Setting	Displayed	Hits	Hit Ratio (%)	Improve over control (#2)
1: Cold Start: Recommend most popular threads for new users	52,506	540	1.03	
2: Recommend recent threads in favorite subforum	17,505	323	1.85	
3: CMU recommender in any forum	17,038	481	2.82***	+53%
4: CMU recommender in favorite subforum	17,742	294	1.66(ns)	-11%

Recommendations encouraged reading new content outside a favored forum

Intervention Evaluation Under Each Algorithm

*By the end of March

Evaluation: Login Recommendation

Recommender Setting	Displayed	Hits	Hit Ratio (%)	Improve over control (#2)
Cold Start: Recommend most popular threads for new users	14914	405	2.72	
Recommend recent threads in subforums	10567	261	2.47	
CMU recommender	10256	406	3.96 ***	+60%
CMU recommender + filtering	10520	199	1.89 (s!)	-31%

Recommendations encouraged finding new content outside a favored forum

Evaluation: Browsing Recommendation

Recommender Setting	Display	Hits	Hit Ratio (%)
Cold Start: Recommend most popular threads for new users	37592	78	0.21
Recommend recent threads in subforums	6938	39	0.56
CMU recommender	6782	43	0.63
CMU recommender + filtering	7222	58	0.8

Adding info about currently open thread doesn't improve recommendations

Evaluation: Similar Users Recommendation

Recommender Setting	Display	Hits	Hit Ratio (%)
Cold Start: Recommend most popular threads for new users	13790	56	0.41
Recommend recent threads in subforums	10499	22	0.21
CMU recommender	10200	31	0.3
CMU recommender + filtering	10122	37	0.37

Users rarely click on other users

Thread Creating Evaluation

Recommender Setting	*Average number	Improve over control (#2)
1: Cold Start: Recommend most popular threads for new users	4.2446	
2: Recommend recent threads in favorite subforum	6.1667	
3: CMU recommender in any forum	6.4545	+4.67%
4: CMU recommender in favorite subforum	6.1442	-0.36%

This means users in recommender setting 'x' are n% more likely or less likely to create posts.

*Average number of threads per user under each recommender setting.

Thread Replying Evaluation

Recommender Setting	*Average number	Improve over control (#2)
1: Cold Start: Recommend most popular threads for new users	6.91	
2: Recommend recent threads in favorite subforum	11.28	
3: CMU recommender in any forum	12.07	+7%
4: CMU recommender in favorite subforum	11.82	+4.79%

This means users in recommender setting 'x' are n% more likely or less likely to reply to posts.

*Average number of comments per user under each recommender setting.

Time Spent Evaluation

Recommender Setting	*Average time	Improve over control (#2)
1: Cold Start: Recommend most popular threads for new users	145.78	
2: Recommend recent threads in favorite subforum	165.62	
3: CMU recommender in any forum	154.83	-6.51%
4: CMU recommender in favorite subforum	162.81	-1.7%

This means users in recommender setting 'x' are spending n% more or less time on the website.

*Average time is in minute.
*Average time is applied to sessions that start and end within 24 hours to avoid severe outliers.

Webform Submission Analysis

*By the end of March

Webform Submission

CSN wants your feedback about the thread titled "My husband refuses help" ⊗

How relevant is this thread to you?
- ○ Extremely relevant
- ○ Very relevant
- ○ Moderately relevant
- ○ Slightly relevant
- ○ Not relevant at all

Please briefly explain your rating.

How valuable to you was reading this thread?
- ○ Extremely valuable
- ○ Very valuable
- ○ Moderately valuable
- ○ Slightly valuable
- ○ Not valuable at all

Please briefly explain your rating.

1180 webforms displayed

110 submissions

9.32% submission ratio

Threads evaluated positively (**82.5%** relevant & **82.4%** valuable)

Sample is too small to breakdown by recommender condition

How relevant?

Positive Feedback

Similar/Same Experience:

It's my description of what's happened to me since inception.

Basically same except I'm patient.

I'm the author.

I was similarly diagnosed summer 2017, stage 1A - grade 3.

I'm stage 4 crc using mushrooms along with chemo.

Going through chemo myself.

Positive Feedback

Related to Family Members:

My daughter is in chemo and we are worried about the flu.

My husband has liver/lung mets but also peritoneal nodes.

Husband's first quarterly scan is next month.

Husband went through similar regimen.

Provides Emotional Support:

I feel at home here.

Now I know there is hope.

Good to read the struggle with that decision that others are going through.

Negative Feedback

Lack of Information:

Not enough information, i.e. what hospital.

Unhelpful Information:

It's a morale building, thank you note, not a cancer experience or technical note.

Irrelevant Information:

My husband's case is dissimilar. He has T3N0M0 Barretts, not Stage 4.

How valuable?

Positive Feedback

Good information.

Good support of this group.

Plan to give the smoothie thing a try when I have chemo on Friday.

It may be valuable once I look up the procedure.

Similar experience, comforting to know others are in the same situation.

Everything on the esophageal discussion board is helpful, regardless of similarity.

I wrote it so it should be valuable.

Negative Feedback

Outdated/Redundant Information:

Mostly older postings.

Get out of my face!

Not much support on the network. Many old threads. I think you should do more advertising and also clean up the look and feel to the chat's to attract more people.

Technical Issue:

I haven't finished reading this thread …before this popped up. Maybe wait till after the thread is complete to pop up question.

Conclusion

- Most of the threads received positive feedback from users.
- Major Problems:
  - Some threads are shown for multiple times, which annoys readers.
  - Information provided in the threads is irrelevant or unhelpful.
- Possible solutions:
  - Only show readers threads that they haven't seen before.
  - Improve the algorithm so that it better matches a user's situation with the content of the threads.

Voting Feedback

*By the end of March

Five Stars Feedback -

How relevant is this thread to you?:

☆☆☆☆☆

CAR-T Cancer Approach Has Surprising Success in Multiple Myeloma

AllSurvivors

Posts: 8
Joined: Feb 2017

Jul 03, 2017 - 5:59 pm

Doctors are reporting unprecedented success from a new cell and gene therapy for multiple myeloma, a blood cancer that's on the rise. Although it's early and the study is small -- 35 people -- every patient responded and all but two were in some level of remission within two months. In a second study of nearly two dozen patients, everyone above a certain dose responded. (source: MMDevelopments.org)

How relevant is this thread to you?:

★★★★☆
Your rating: 4 (1 vote)

541 submissions

In **92.6**% cases, 4 or 5 scores on 5-point scale

Too little data to breakdown by recommender condition