WHAT IS CLAIMED IS:

1. A system of providing recommendations based on user-supplied criteria using machine learning models, the system comprising:

memory; and

non-transitory computer-readable memory comprising instructions that cause a processor to perform operations comprising:

receiving a user preference for content recommendations from a user;

retrieving a user profile for the user;

comparing the user preference to the user profile to determine a criterion for content recommendations for the user by generating a first feature input for a first machine learning model based on the user preference and the user profile and inputting the first feature input into the first machine learning model to receive the criterion, wherein the first machine learning model comprises a first content-based filtering component and a first collaborative filtering component;

receiving a content attribute for content provided by a content provider;

retrieving a content provider profile for the content provider;

comparing the content attribute to the content provider profile to determine a normalized content attribute for content recommendations for the content provider by generating a second feature input for a second machine learning model based on the content attribute and the content provider profile and inputting the second feature input into the second machine learning model to receive the normalized content attribute, wherein the second machine learning model comprises a second content-based filtering component and a second collaborative filtering component;

matching the criterion to the normalized content attribute; and

in response to matching the criterion to the normalized content attribute, generating for display a recommendation to the user for the content.

2. A method of providing recommendations based on user-supplied criteria, the method comprising:

receiving, using control circuitry, a user preference for content recommendations from a user;

retrieving, using the control circuitry, a user profile for the user;

comparing, using the control circuitry, the user preference to the user profile to determine a criterion for content recommendations for the user, wherein comparing the user preference to the user profile to determine the criterion for content recommendations for the user, further comprises:

generating a first feature input for a first machine learning model based on the user preference and the user profile; and

inputting the first feature input into the first machine learning model to receive the criterion, wherein the first machine learning model comprises a first content-based filtering component and a first collaborative filtering component;

receiving, using the control circuitry, a content attribute for content provided by a content provider;

retrieving a content provider profile for the content provider;

comparing the content attribute to the content provider profile to determine a normalized content attribute for content recommendations for the content provider by:

generating a second feature input for a second machine learning model based on the content attribute and the content provider profile; and

inputting the second feature input into the second machine learning model to receive the normalized content attribute, wherein the second machine learning model comprises a second content-based filtering component and a second collaborative filtering component;

matching the criterion to the normalized content attribute; and

in response to matching the criterion to the normalized content attribute, generating for display a recommendation to the user for the content.

3. The method of claim 2, further comprising:

receiving, using the control circuitry, a content description of the content from the content provider;

retrieving, using the control circuitry, a provider profile for the content provider; and

comparing, using the control circuitry, the content description to the provider profile to determine the content attribute for the content.

4. The method of claim 3, wherein the provider profile is based on reviews from third parties or data derived by analysis of third-party reviews in conjunction with other information.

5. The method of claim 2, wherein the criterion includes a list of approved providers, and the content attribute identifies the content provider, and wherein matching the criterion to the content attribute comprises determining that the content provider is on the list of approved providers.

6. The method of claim 2, wherein the criterion is included in a first category, and wherein criteria in the first category are determined for a plurality of users.

7. The method of claim 6, wherein matching the criterion comprises minimizing a sum of a value of the criterion in the first category for the plurality of users.

8. The method of claim 6, further comprising training a recurrent neural network, CNN, and/or transformer, or other suitable learning and/or optimization algorithm to minimize a sum of a value of the criterion in the first category for the plurality of users.

9. The method of claim 2, further comprising training a machine learning model to determine the criterion based on the user preference and user profile.

10. The method of claim 2, wherein the user profile is based on previous actions of the user.

11. A non-transitory, computer-readable medium for providing recommendations based on user-supplied criteria comprising instructions embedded thereon that when executed by one or more processors causes operations comprising:

receiving a user preference for content recommendations from a user;

retrieving a user profile for the user;

comparing the user preference to the user profile to determine a criterion for content recommendations for the user, wherein comparing the user preference to the user profile to determine the criterion for content recommendations for the user, further comprises:

generating a first feature input for a first machine learning model based on the user preference and the user profile; and

inputting the first feature input into the first machine learning model to receive the

criterion, wherein the first machine learning model comprises a first content-based filtering component and a first collaborative filtering component;

receiving a content attribute for content provided by a content provider;

retrieving a content provider profile for the content provider;

comparing the content attribute to the content provider profile to determine a normalized content attribute for content recommendations for the content provider by generating a second feature input for a second machine learning model based on the content attribute and the content provider profile and inputting the second feature input into the second machine learning model to receive the normalized content attribute, wherein the second machine learning model comprises a second content-based filtering component and a second collaborative filtering component;

matching the criterion to the normalized content attribute; and

in response to matching the criterion to the normalized content attribute, generating for display a recommendation to the user for the content.

12. The non-transitory, computer-readable medium of claim 11, wherein the operations further comprise:

receiving a content description of the content from the content provider;

retrieving a provider profile for the content provider; and

comparing the content description to the provider profile to determine the content attribute for the content.

13. The non-transitory, computer-readable medium of claim 12, wherein the provider profile is based on reviews from third parties or data derived by analysis of third-party reviews in conjunction with other information.

14. The non-transitory, computer-readable medium of claim 11, wherein the criterion includes a list of approved providers, and the content attribute identifies the content provider, and wherein matching the criterion to the content attribute comprises determining that the content provider is on the list of approved providers.

15. The non-transitory, computer-readable medium of claim 11, wherein the criterion is

included in a first category, and wherein criteria in the first category are determined for a plurality of users.

16. The non-transitory, computer-readable medium of claim 15, wherein matching the criterion comprises minimizing a sum of a value of the criterion in the first category for the plurality of users.

17. The non-transitory, computer-readable medium of claim 15, wherein the operations further comprise: training a recurrent neural network or other suitable learning and/or optimization algorithm to minimize a sum of a value of the criterion in the first category for the plurality of users.

18. The non-transitory, computer-readable medium of claim 11, wherein the operations further comprise: training a machine learning model to determine the criterion based on the user preference and user profile.