

EMBARKING ON DIGITAL SELF-CARE JOURNEY



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Table of Content

| | |
|----------|---|
| 03 | Abstract |
| 03 | Self-care Portals — Too Difficult an Approach? |
| 03 | Enabling Digital Self-care |
| 04 | Managed Navigation |
| 05 | Displaying Known Suggestions and Unresolved Issues via Text Analytics |
| 06 | Conversational Search on Mobile or Device Panel |
| 06 | Digital Self-care is Here to Stay |
| 07 | About the Author |
| 07 | About Wipro Ltd. |

Abstract

Traditional self-care portals host millions and trillions of documents that contain installation, configuration and troubleshooting procedures to help resolve customers' service management issues.

However, such portals, more often than not, are ineffective as they find it difficult to identify the relevant content for the specific issues that customers are facing. It is also time consuming to identify the relevant document that would assist a customer to resolve a particular issue. This usually impacts the overall customer experience significantly. This paper discusses various dimensions that can help in solving these issues in the digital era.

Self-care Portals — Too Difficult an Approach?

Current self-care portals have been designed to direct customers to multiple troubleshooting documents, rather than guiding them to a final solution.

In the digital age, these self-care portals have to be one-stop, comprehensive portals, rather than mere contact centers running on the web.

Social media is ideal for delivering customer care because it enables reaching customers asynchronously.

But, if your fundamental customer segments are not using social media Websites, then other options like privately-moderated community forums, online chat services or intelligent FAQs should be available on the digital self-care portal. With the emergence of mobile-first design and adoption of single-page architectures, enterprises need to create or support mobile-friendly self-care portals.

Enabling Digital Self-care

Digital Self-care can be powered by strategies, such as:



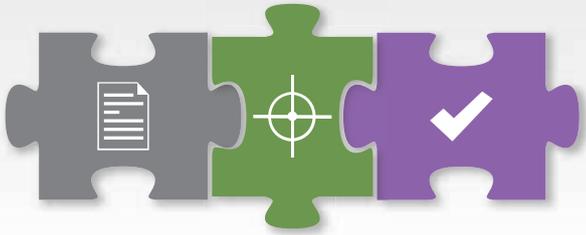
Managed Navigation

Analytical algorithms can be run on the clickstream data of a support Website. The results of these algorithms can be tuned to get a resolution path of a particular customer visiting the support Website for a troubleshooting issue.

This would reduce the number of call center queries, thus bringing down operational costs significantly.

To provide this kind of analytics to a self-care portal, enterprises can typically use the historical clickstream data available on the support portal.

It is fair to assume that the support documents are tagged with relevant meta-data like category and sub-category of the content for a particular product. The recommendations for issue resolution would largely be based on the assumption that every next click of a user, in majority of the sessions, will enable him to move closer to the desired resolution. To get more accurate resolutions like this for a given document, say titled "D0," it is advisable to execute the following steps:



Get the support documents within the category/sub-category that were browsed subsequent to the source document "D0". Let us say they are D1, D2, D3, D4 and D5. You can get the list of visitors who accessed these documents in a particular session. Then get the count of page views for each subsequent document

Cluster all the page view numbers to form centroids. Keep adding every visit to determine the centroid

Run the above steps again to check if the centroid is stable or not

Once the centroid is static, the algorithm will pick the top three most-visited documents from each cluster, resulting in identifying the most relevant document, which is most likely to resolve the customers' issues. The above approach is termed as "content-to-content relation." We can also get insights by recommending the relevant content by relying on the single "most similar" visitor.

By analyzing the content related to users' browsing behavior, we can identify visitors whose browsing patterns are alike, based on collaborative filtering algorithms (see Figure 1).

Assume the source document is "D0" and there is a visitor with a unique visit ID 2639. There are 10 documents within the relevant category and sub-category of the document "D0". The collaborative filtering algorithm will identify three users (with unique visit IDs) who have similar browsing patterns on these 10 documents, similar to the user (visit ID 2639).

However, if visitor 2639 has not visited any of the pages within the category, then it is difficult to identify the users with similar browsing behavior. In that case, the algorithm would get the top most-viewed document among the other visitors.

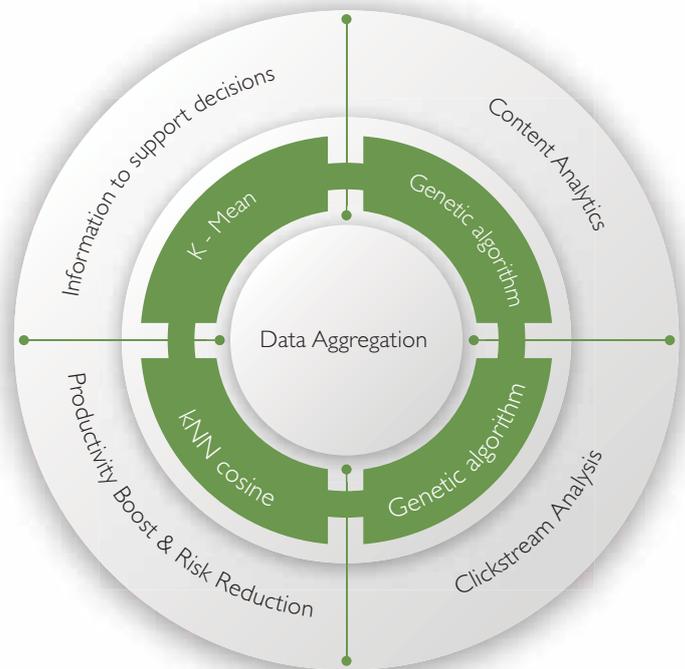


Figure 1. Data Aggregation Model

These insights would help nail down the critical path of documents that would help the end user identify the resolution to his trouble ticket. Also, analytics would help draw relevant search results in support portals.

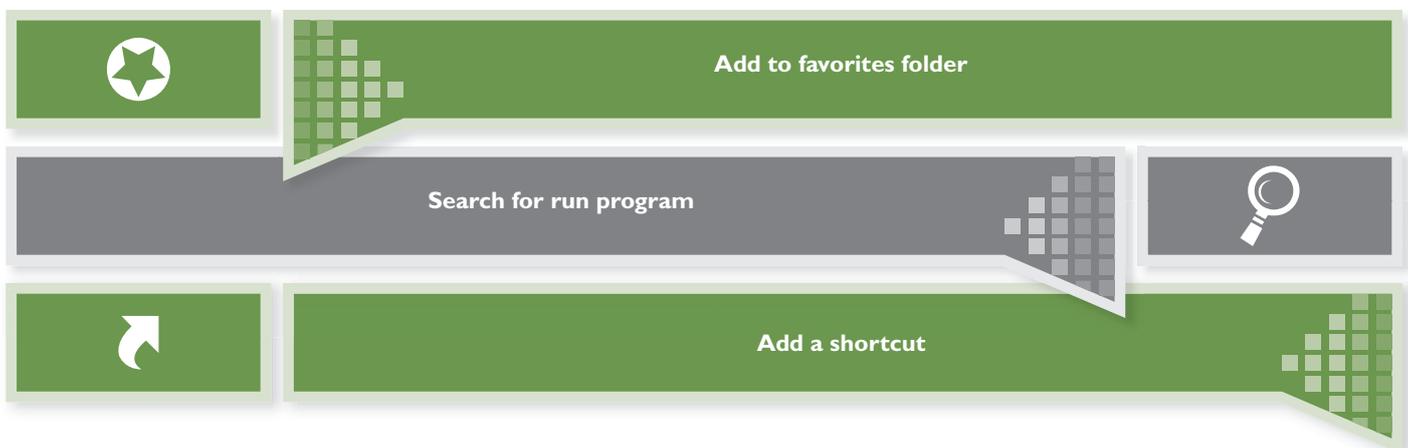
Displaying Known Suggestions and Unresolved Issues via Text Analytics

In support forums, maintained by a support portal, multiple discussion threads exist on similar topics. Given the volume of support discussions, for instance 100 discussion threads for a “paper-jam” issue for a color laser printer; the user will not have the time to go through all the threads to understand the resolution.

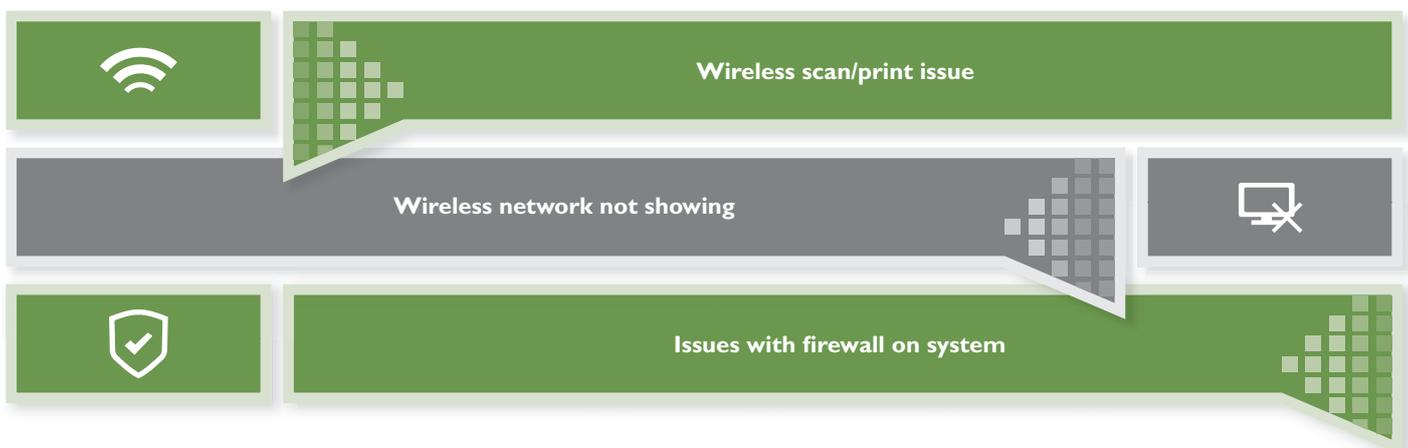
It is difficult for users to go through different lengthy threads to read through, search and look for a solution. Hence, quick and fast access to solutions can be enabled by providing solution snippets, summarized through text mining and natural language processing, for each thread of issues. It saves time for the user and results in better user experience.

Typical text analytics and text mining could help in displaying “Known Suggestions” and “Unresolved Issues”. Known suggestions can be listed by creating solution snippets from resolved threads.

Example of “Known Suggestions” for getting started with the latest version of a renowned operating system (OS) are:



By mining the text from “Unresolved Issues”, a user can be provided with the list of unresolved issues on the problem category – “paper-jam”. Examples of unresolved issues are:



Conversational Search on Mobile or Device Panel

Enterprises should strive to provide self-care solution recommendations proactively, on the panel of the faulty device or on the mobile application. This is similar to the instant help that you may get from a laptop manufacturer:

FAQs displayed in those device panels of mobile applications would be machine-generated.

A set of anticipated questions, classified by product category and a planned set of actions or answers, can be stored in an in-memory database within the device or mobile application.

This is possible by learning and processing each word in every conversation with customers across all channels.

This learning can be used as an input to improve visibility into finding answers to tech support issues, and thereby provide customers the ability to manage their product or service support account online/on mobile/on device.

Digital Self-care is Here to Stay

These strategies of digital self-care would not only enrich customer experience but also reduce operational costs substantially.

The three strategies of guided navigation, known suggestions/unresolved issues and conversational search would enable customers to get answers faster; thereby reducing agent touch time and optimizing workforce investment.



About the Author

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