



# Search versus Decision Trees

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## **Search or Decision Trees – Which is Right for Me**

“Should I use search or decision trees?” is a question we’re often asked by call centre clients when they’re working out how best to help agents improve first time call response. Choosing between the two, they find, isn’t always straightforward (not made easier when sales staff only offering one or the other product).

When asked, we generally say “yes you should”, then quickly add: “both approaches have their merits. Usually search is good, often decision trees are better – and sometimes best of all is to deploy both together”.

“OK, but what should I do now – what is the best approach, and how do I make it work for me?” We do have a view on these questions – and that is the subject of this White Paper.

### ***Search for Information***

Many business people use search every day. With rapidly improved techniques, search against a knowledge base is increasingly used to find the information needed to resolve a customer’s query. Innovations in search, as well as in knowledge base design, have made available a range of approaches and very extensive bases of internal and market-wide knowledge (we frequently see clients using Wikipedia as a source for customer calls).

With search, the agent selects or infers key words from the customer’s comments, then uses these to search against a knowledge base; both the search approach and the knowledge base can be more or less sophisticated. Like Google, this approach can be outstandingly effective as a way of tracking down relevant information. Provided the caller’s problem is not too complex, not too many references are generated, and the agent is a sympathetic listener, then most times both agent and customer will obtain a good result.

Also like Google, however, the approach has limitations: the agent doesn’t always get lucky! In particular, where the customer’s problem needs detailed, precise and expert diagnosis, then a more structured approach is required.

### ***Decision Trees for Advice***

While search is effective at locating a piece of information, this is not necessarily best if the customer needs advice to solve a complex technical problem – e.g., to get their computer working. Where advice is needed, decision trees are generally more helpful.



Examples of the two situations and types of call are shown below:

<b>Search Knowledge Base</b>	<b>Follow Decision Guide</b>
I need to update my system – where are the installation instructions?	I need to update my system – can you walk me through the configuration based on my machine?
I'm getting an error message – is this a known problem?	I'm having a problem doing a particular task, can you walk me through a solution?
What are the system requirements for your product?	Can you tell me if this product is a good fit for my system?
Can you tell me more about this product?	Can you tell me about which product is right for me?
Can you give me more information on my problem?	How do I solve my problem given my situation?

Searching a knowledge base typically works well for the queries in the left hand column, where what's needed is quickly and efficiently to find specific pieces of information. Where instead the customer needs advice – i.e., they need talking through a complex set of steps, with further questions to be asked along the way – then a decision tree based approach is required.

## ***Who Needs Advice?***

Such advice, guiding the agent through a complex logic, is regularly needed to handle a range of service and sales calls, including:

- Problem solving diagnostics: helping callers work out what is wrong with a product, such as a computer, mobile phone or an electronic device
- Health diagnostics: helping callers work out what is wrong with themselves
- Product setup or configuration: helping customers through a complicated product setup, to get started with their new computer or modem
- Product selection: helping customers decide which product best meets their particular circumstances – e.g., which telephone price package should I purchase?
- Financial advice: supporting or driving a regulated sale (e.g., life insurance).

These situations have several points in common:

1. Multi-step answer. First, the customer needs talking through a sequence of steps – often the call can be long and complex
2. Interactive logic. Next, the right route may not be immediately apparent, and depends on information imparted through the call



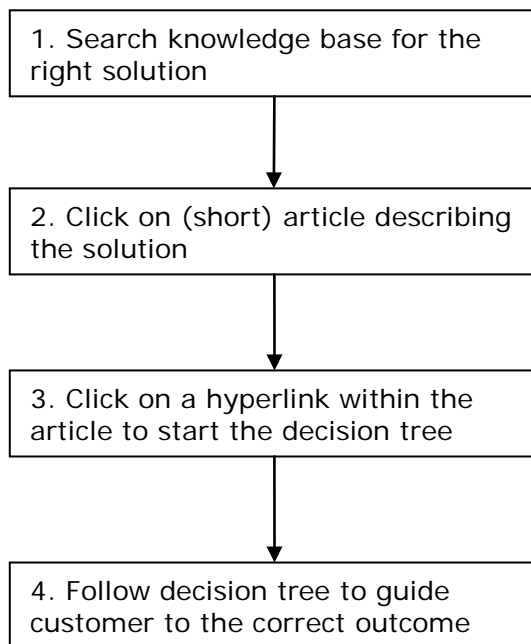
3. Precision required. Typically, the steps must be followed precisely to get to the right outcome – an approximation, however close, will not get the machine working.

In these circumstances, decision tree guides are needed, but search can often play an important role in getting to the start of the decision logic.

### ***Approaches Work in Tandem***

Sometimes, the best solution of all is to use both search and decision trees together. Carefully designed, they can fit together very well, giving the call handler access to a powerful combination of information and advice.

Deploying the two together, agents need to start with search before narrowing in to the specific path which solves their customer's problem:



Combining the two approaches in this way brings distinctive benefits:

- Searching the knowledge base quickly focuses on a particular solution area, meaning the customer is not answering many general questions
- Using a decision tree gets to the right answer and resolves the call by providing detailed and precise advice.

In short, providing the best customer experience may need both approaches working in tandem.



## Putting it into Practice

Concluding, we find both approaches can and do deliver value – and they can work very well together. Either way, solutions will win where they are:

- Easy for agents to find the right answer and approach which solves their customer's problem
- Easy for business users to update and manage content
- Easy to handle integration – with knowledge bases, data stores or problem handling systems; and
- Quick to implement and change – to allow rapid responses to new calls and challenges.

What works in the call centre, we find, will also work on the web.

## ***Self Serve Information and Advice***

Finally, as many customer service functions are going online, so search and decision tools are proving their worth there. We're starting to see clients ask the same questions about how best to put together online self service for their clients, and whether to use search or decision trees online. Perhaps not surprisingly, we are offering similar guidance, online as in call centers: usually search is good, often decision trees are better – and sometimes best of all is to deploy both together.

## Additional Information

If you would like information about how to improve your support applications within your organization please contact us at via our website [www.informavores.com](http://www.informavores.com) or call us in the US on +1 800 773 3061 or UK and other countries on +44 161 907 2567.