

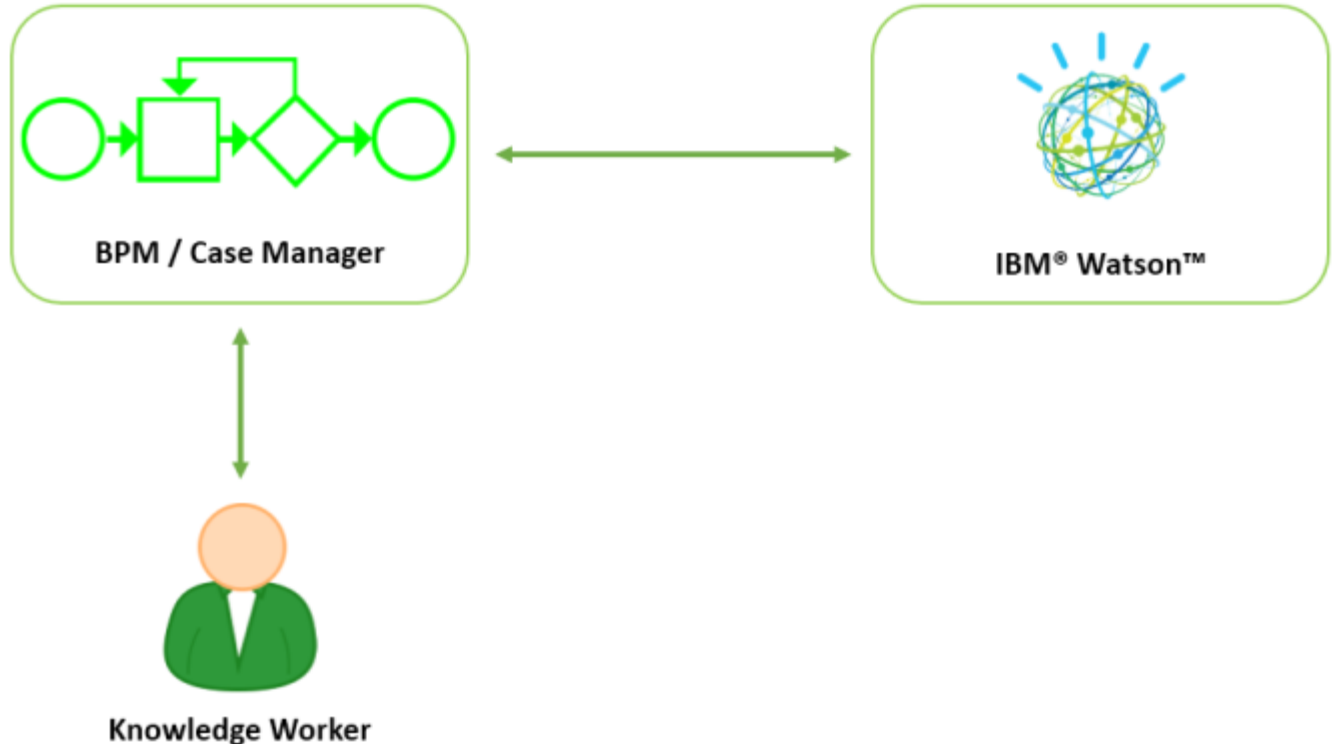
How to Empower Knowledge Workers Using Cognitive BPM

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Throughout the life cycle of a business process knowledge workers are required to make decisions based on their domain knowledge.

IBM® Watson™ is an artificially intelligent computer system with the capability to answer any domain related questions in a natural language.

In this Article we are going to take a look at how different IBM® Watson™ services can be used within business processes to empower knowledge workers in making better decisions.



Personality Insights

Enables deeper understanding of people's personality characteristics, needs, and values to help engage users on their own terms.

Example: This service can be utilized in processes such as New Hire. It can be used to analyze various personality characteristics of a candidate. It analyzes the input text which in our example can be candidates profile, emails or any other communication. The output will be both in natural language and visual formats as

shown in diagrams below. This output can help in deciding if the candidate is a good fit for the organization or not.

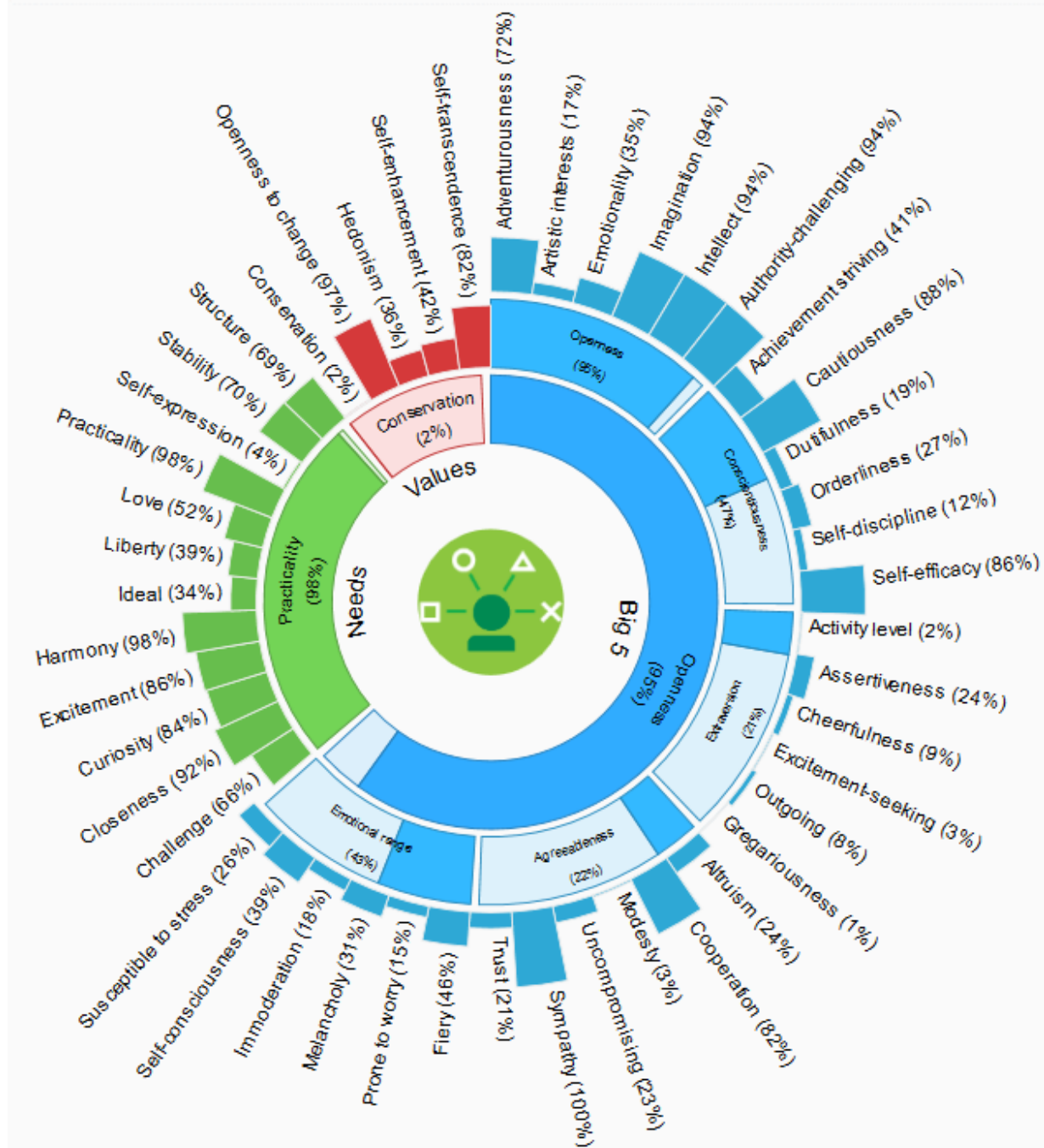
You are inner-directed and skeptical.

You are empathetic: you feel what others feel and are compassionate towards them. You are independent: you have a strong desire to have time to yourself. And you are laid-back: you appreciate a relaxed pace in life.

Your choices are driven by a desire for efficiency.

You are relatively unconcerned with tradition: you care more about making your own path than following what others have done. You consider independence to guide a large part of what you do: you like to set your own goals to decide how to best achieve them.

**Compared to most people who participated in our surveys.*



Concept Insights

Explores information based on the concepts behind your input, rather than limiting investigation to findings based on traditional text matching

Example: Processes such as Talent Acquisition that currently use keyword-based search can tremendously benefit from this service. The traditional keyword-based searches might not always return the desired results because if an exact match is not found the document and in our case a resource profile will simply be ignored. The Concept Insights service on the other hand looks for conceptually related items i.e. even if the input keywords do not exactly match, this service will try to find content that is related to the same concept. In our example a resource profile might not match the exact keywords, but it will still show up in the search results even if the resource profile has different keywords or they have worked in a related area.

DevOps × Programming model ×

Add more concepts...

Results




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- DevOps
- Development operations
- Service Delivery
- Programming language
- Software engineers
- Programing



Resource 1

- Software development methodology
- Method (software engineering)
- Agile software
- Reflection (computer programming)
- Software engineering
- Framework (software)



Resource 2 (R2)

- Software engineering methodology
- Systems management
- Agile development
- Bachelor of Computer Science
- Object-Oriented Programming



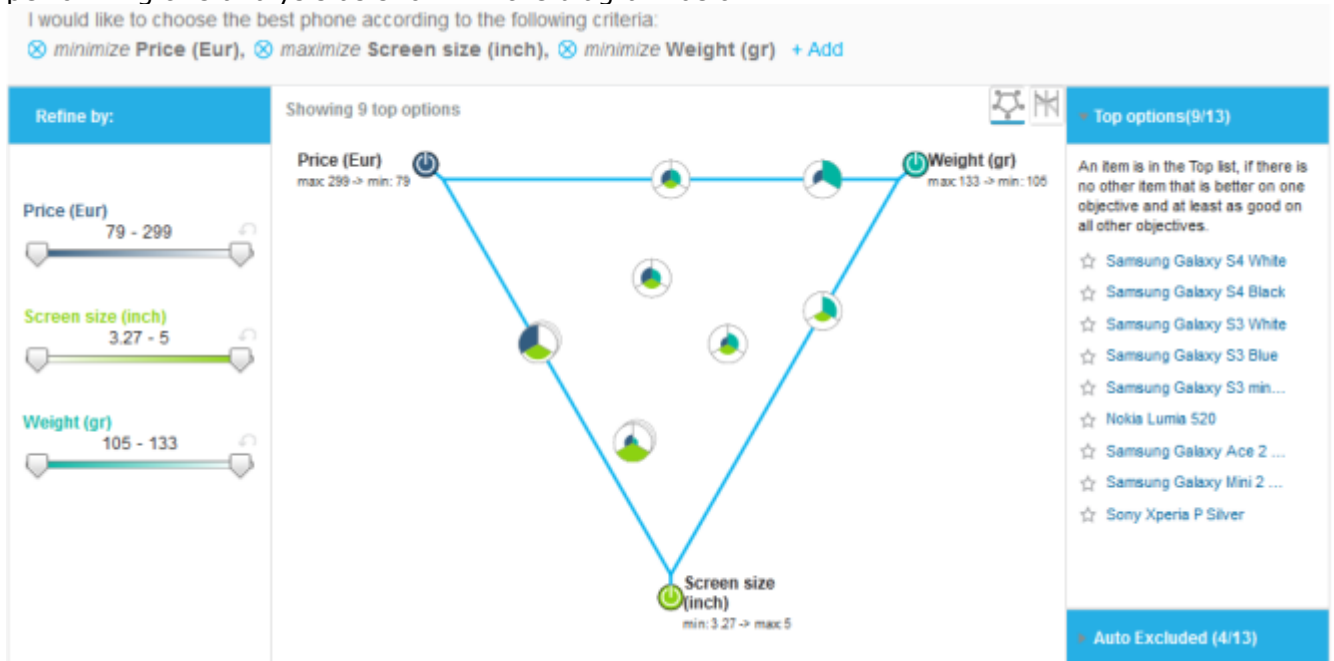
Resource 3 (R3)

- Programming model
- Iterative development
- Change Management
- Software process
- Quality assurance

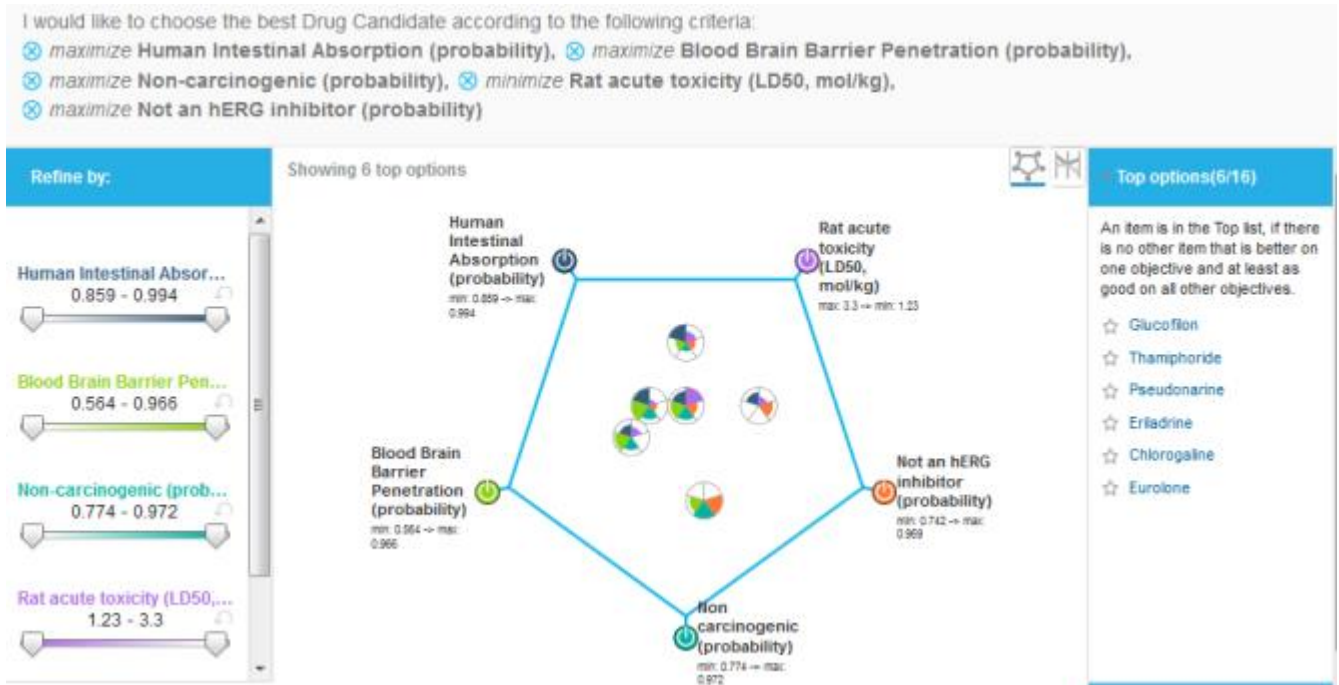
Tradeoff Analytics

Helps users make better choices to best meet multiple conflicting goals, combining smart visualization and recommendations for tradeoff exploration

Examples: Tradeoffs are an integral part of the decision making process. This service can help recommend the best possible case that meets organization goals. This service can be utilized in the supply chain processes for selecting best possible suppliers, sourcing low cost parts etc. The service provides a very visual way of performing this analysis as shown in the diagram below.



Another great utility is in the patient case management where this service can help decide the best treatment options and drugs for patients.



Similarly this service can be used in financial asset management processes to make informed decisions about choosing the best assets for investment.

Language Identification / Machine Translation

Identifies the language in which text is written

Globalize on the fly. Translate text from one language to another

Example: These are two distinct services, one that identifies which language is the input text written in, while the second one translates it. For larger organizations that operate globally this is an essential requirement. This service just makes the whole globalization process easy by automatically translating the text.

Question And Answer

Direct responses to user inquiries fueled by primary document sources

Example: This service provides answers to questions in a natural language thus making it a great source for getting additional domain specific information. The answers that the service returns also include Watson's confidence level as a percentage.

The service can be used in all types of processes such as in travel and hospitality processes for finding out visa and vaccination requirements of a country or in the healthcare industry for getting more information about a disease.

Travel

Do I need a visa to enter Brazil?

Ask

[Try an example question](#)

Answers and Confidence

Do not pay the fee until you have spoken with a federal police officer about your case. If she/he denies the extension of your visa, you must have a bank account in Brazil in order to receive a refund. The requirement to first enter Brazil within 90 days of the issue of the visa now only applies to nationals of Angola, Bahrain, Burma, Cambodia, Cape Verde, China, Cuba, Equatorial Guinea, Gabon, Ghana, Greece, Honduras, Indonesia, Japan, Jordan, Korea, Kuwait, Laos, Libya, Nigeria, Oman, Pakistan, Paraguay, The Philippines, Portugal, Qatar, Syria, Switzerland, Taiwan, Thailand, and Tunisia. Failure to enter Brazil within 90 days will invalidate the visa, no matter how long it is otherwise valid for.

Confidence: 93%

Was this answer relevant?
[Yes](#) | [No](#) | [Partial](#)

Countries require visas from visitors for regulatory, security and economic reasons. It is important to confirm visa information with a current and reliable source, such as the embassy of the country where you're traveling. You may need a visa for any countries you visit or transit on your trip. Visa requirements vary depending on the nationality of your passport, the length of your stay, whether you will leave the airport, the nature of your trip, your point of entry, and the areas you will be visiting. These requirements can also change regularly. While you may be exempt from having to obtain a visa when making a short trip to a particular country for tourism or business, long stays in any foreign country will almost always require you to obtain a visa. Your residency usually does not determine whether or not you need a visa, only the nationality on your passport. If you are a non-citizen where you currently reside, never rely on local advice on whether you need a visa to visit a nearby foreign country or other popular location abroad. The locals may not need visas, while you may (or vice versa). Also, be sure you will be allowed back into the country where you are residing. If you are not a citizen of that country, you may need a permanent residence visa in your foreign passport to be allowed to return. On the other hand, your residency does matter in where you go to obtain the visa. See the section: Obtaining the visa below. The Foreign and Commonwealth Office - www.fco.gov.uk issue advice to UK Nationals on whether or not a visa is required for a complete list of countries around the world. U.S. citizens can use [1] for initial indications of need for visas. Most nationals, including US citizens can use [2] for initial indications on whether a visa is required or not.

Confidence: 24%

Was this answer relevant?
[Yes](#) | [No](#) | [Partial](#)

Conclusion

In addition to the IBM® Watson™ services mentioned above, there are quite a few other services that are currently available, such as:

- Concept Expansion
- Relationship Extraction
- Message Resonance
- Speech to Text
- Text to Speech
- Visual Recognition
- Visualization Rendering

All of these services are available on IBM® Cloud™, can be easily developed using Blue mix™ and consumed within any Business Process Management (BPM) or Case Management tool. For now these can be used to support and empower knowledge workers in making decisions but in future these can and will be used to automate the decision making process.

References

- *IBM® Watson™ Services Catalog – Used for service definitions*
- *Integrate IBM BPM with IBM Watson, Part 1 by Raj Mehra*
- *Integrate IBM BPM with IBM Watson, Part 2 by Raj Mehra*

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Author

: Adeel Javed is a technology professional with over a decade of experience in business process management (BPM). He has helped various Fortune 500 organizations from diverse global industry domains with their process improvements and automation projects. He is a published author of a beginner's book on Internet of Things and shares his thoughts on various technology trends at AdeelJaved.com.