# **IMPROVEMENTSCAN - CANVAS**

# **Behavior Trees**

NAME: Behavior Trees DATE: May 6, 2024 4:05 AM DESCRIPTION OF TECHNOLOGY Behavior trees are a formal, graphical modelling language used primarily in systems and software engineering. Behavior trees employ a well-defined notation to unambiguously represent the hundreds or even thousands of natural language requirements that are typically used to express the stakeholder needs for a large-scale software-integrated system.	HUMAN VALUES For the technology could do with a sort of custom node you can program anything you want into. You'll just need to declare when the node runs.	TRANSPARENCY A program like groot would benefit from a commenting system when making the diagrams.
IMPACT ON SOCIETY It would be good to implement a code template generator or a visual code editor for a tool like groot where you need to double click on different BT nodes and you can fill in what it does in actual code. This way it is easier to understand how the code is structured.	STAKEHOLDERS There would need to be a way to make the implementation into existing projects easier. Not entirely sure how that would work though.	SUSTAINABILITY
HATEFUL AND CRIMINAL ACTORS	DATA	FUTURE It would be good to make community built well licensed software so it cannot be made proprietary. This way the technology stays developer focused and the implementation steps should become easier.
PRIVACY	INCLUSIVITY	FIND US ON WWW.TICT.IO THIS CANVAS IS PART OF THE TECHNOLOGY IMPACT CYCLE TOOL. THIS CANVAS IS THE RESULT OF AN IMPROVEMENTSCAN. YOU CAN FILL OUT THE FULL TICT ON WWW.TICT.IO Fontys Fortys

# **IMPROVEMENTSCAN - CANVAS - HELPSIDE**

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# **Behavior Trees**

NAME: Behavior Trees



#### **DESCRIPTION OF TECHNOLOGY**

Behavior trees are a formal, graphical modelling language used primarily in systems and software engineering. Behavior trees employ a well-defined notation to unambiguously represent the hundreds or even thousands of natural language requirements that are typically used to express the stakeholder needs for a large-scale software-integrated system.

### HUMAN VALUES

Now that you have thought hard about the impact of your technology on human values, what improvements...

If you think about the impact of this technology on human values and needs. If you think about how this technology affects the identity of the user, the autonomy of the user (can the users make their own decisions?) and the health and wellbeing of the user. If you think about all that, what improvement would you (want to) make? In the technology?...

#### **IMPACT ON SOCIETY**

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Now that you have thought hard about the impact of this technology on society (by filling out the questions...

If you think about the real problem this technology is going to solve. If you think about the ability of this technology to solve the real problem. If you think about possible negative effects and whether this technology will contribute to a world you want to live in. If you think about all that, what improvements would you make? In technology? In context? In use?...

#### HATEFUL AND CRIMINAL ACTORS

Now that you have thought hard about how bad actors can impact this technology, what improvements would...

If you think about this technology being used to break the law, or avoid the consequences of breaking the law, or to be used against certain groups, or to attack the truth or to pit certain groups against each other. If you think about all of that, what improvements would you (want to) make? In the technology? In context? In use?...

### PRIVACY

Now that you have thought hard about privacy and data protection, what improvements would you like to make?...

If you think about this technology invading someone's privacy or collecting personal data and if you think about the way this technology is compliant with prevailing law and mitigates dataprotection risks and concerns. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?...

### STAKEHOLDERS

Now that you have thought hard about all stakeholders, what improvements would you like to make? List them...

If you think about all stakeholders of this technology. If you think about stakeholders that are less obvious. If you think about the way certain stakeholders are affected by this technology and if you want to take them into consideration. If you think about all that, what would you (want to) improve? In the technology? In context? In use?...

#### DATA

Now that you have thought hard about the impact of data on this technology, what improvements would you...

If you think about the limitations of data. Things like subjectivity, incomplete datasets and so on. If you think about the way new insights are handled. If you think about the sustainability of the collection of data or the data that is collected from the users. If you think about all that, what would you (want to) improve? In the technology? In context?...

## INCLUSIVITY

Now that you have thought hard about the inclusivity of the technology, what improvements would you like to...

If you think about accessibility to this technology. If you think about built in biases or automatic decisions that may be biased. If you think about who is benefitting from this technology and the diversity of the team that creates the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In...



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#### TRANSPARENCY



Now that you have thought hard about the transparency of this technology, what improvements would you like t...

If you think about the communication on the way the technology works and the businessmodel. If you think about the explanation on automatic decisions that are made. If you think about complaint procedures and transparency on possible negative effects. If you think about all that, what would you (want to) improve? In the technology? In context?...

### SUSTAINABILITY



Now that you have thought hard about the sustainability of this technology, what improvements would you like t...

If you think about the direct and indirect energy use and the materials that are used in the technology. If you think about the lifespan of the technology and the hidden environmental impact of the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?...

### FUTURE

Impact Improvement: Now that you have thought hard about the future impact of the technology, what...

If you think about an utopian and a dystopian scenario. If you think about the way this technology can change the world. If you think about the consequences of a different party buying your technology. If you think about all that, what would you (want to) improve? In the technology? In context? In use?

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