

Antipattern: Cargo-Culting

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Adopting processes, technologies or methodologies without understanding why and how they work, in the expectation to achieve the same benefits as the role model.

Description

The origin of “cargo culting” goes back to indigenous people living on pacific islands, which were used as air force bases during WWII. These bases mostly got their supplies by air drop. After the military left the islands, the cargo supplies stopped and the indigenous people started to imitate the soldiers’ behavior, for example by carving wooden headphones, like the tower staff has worn, or igniting the runway lights at night. This way they hoped to receive supplies again by the spiritual entities they believed the soldiers and cargo planes were.

In modern IT this behavior can be observed again. The “Cargo cult” describes the adoption of behavior – which is presented by role models – to achieve the same benefits, without understanding the reasons and motivations behind the decisions made in the first place.

Generally, adopting the ideas of a role model is nothing bad, as they mostly invested more time and money for that result than later followers. The process of doing things without questioning them is often used as a starting point for learning new processes, technologies or methodologies, like it’s done in the japanese martial arts principle “Shu Ha Ri”.

The first phase “Shu” can be translated as “follow”, which means that the learning person imitates the behaviour of the teacher exactly without questioning it. The following phase “Ha” means to “detach”, where the learning person is running into the boundaries of the adapted behavior and needs to find its own way to further improve their own skills.

The last phase “Ri” roughly translates to “leave”, where the learning person finds its completely own way to solve problems because it has understood the implications and boundaries of the learned behavior. As long as the phases “Ha” and “Ri” are part of adopting new processes, technologies or methodologies, the phase “Shu” most likely won’t lead to the negative implications of cargo culting. Unfortunately, oftentimes exactly these two phases are ignored and the result is the kind of cargo culting we would describe as an anti-pattern.

What are some examples?

BPMN engine for everything
Using architecture approaches not fitting your company, like using microservices because some role model, e.g. Netflix, is using them
Implementing unsuitable processes for your company culture, like the Spotify model, just because it is the current agile ‘trend’

Why does this happen?

Adopting the new behavior takes so much time that the reflecting and adapting phases are skipped.
Employees who begin to adopt new behavior and communicate first results to the management may fear the loss of face, when they discover that the new behavior doesn’t fit to the company’s culture or problem faced.
Missing trust of management in its employees. If employees raise issues regarding the new behavior, they won’t be listened to or just fear to not be listened to.
The employees miss the necessary skills to reflect and adapt the new behavior, so they just keep doing what the role model propagates

How can we avoid getting into the situation in the first place?

When adopting new behavior the time for reflection and adapting needs to be allotted from the beginning. This needs to be clearly communicated to relevant stakeholders, so

they are aware of the additional time and possible changes of the initial behavior. Create a culture where issues regarding any shortcomings (including new behavior) can be raised and discussed. Encourage further learning for employees to enable them to reflect and adapt behavior.

What are suggestions to get out of the situation if we ended up in it?

Start reflecting the behavior and adapt it to your specific needs. Use the strengths of the people who work on the 'new thing' to enable them to reflect and adapt it.