

Master Project

Data-Driven Control Approaches for Enhancing Through-Partner Social Engagement in IT Channel Marketing

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Context

Channext is a partner marketing platform that automates channel marketing efforts within the IT channel industry. This industry represents the distribution network of the supply chain for IT products and services, visualised in figure 1. The central focus of this project revolves around automated social media content distribution through the pages of IT resellers, leveraging popular platforms such as LinkedIn and Facebook

The growing collaborations between IT resellers and manufacturers present a distinctive challenge: achieving optimal through-partner social engagement. Optimal engagement, characterized by maximizing clicks, likes, and comments on social media posts, is currently effected by content overload. Addressing this problem involves strategic control over post scheduling. This challenge extends beyond conventional marketing automation, as the abundance of social media content introduces complexities that demand a precise and adaptive control strategy.

To address this, the project will introduce an advanced model for the vendor-partner network. This upcoming model, driven by carefully selected data and machine learning, will dynamically enhance the control framework for through-partner social engagement. The primary goal is to empower IT resellers to actively participate in vendor-led social media campaigns while avoiding overpublishing.

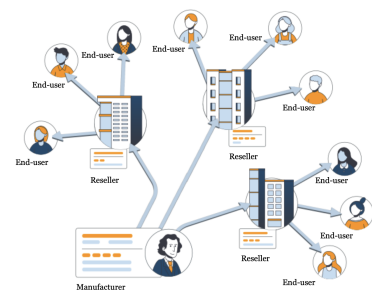


Figure 1: The IT channel industry operating as a network that connects manufacturers, resellers, and end-users

The integration of reinforcement learning, figure 2, will transform the project into a learning system, capable of autonomously adapting to the evolving dynamics of the vendor partner network. This research will redefine the architecture of through-partner social engagement, pioneering a new standard for intelligent and adaptive strategies in the IT Channel Industry. Moving beyond traditional marketing automation challenges, the project envisions a finely tuned and responsive system, aiming for sustained impact in the ever-evolving digital landscape.

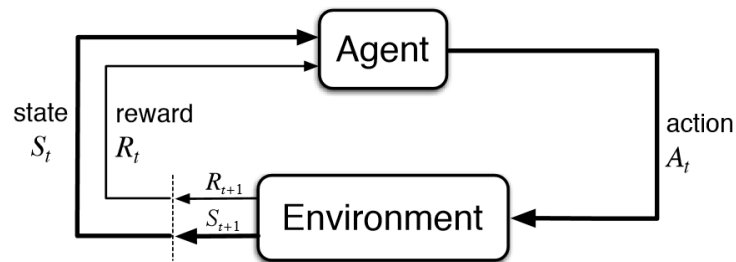


Figure 2: The reinforcement learning action-reward feedback loop. The agent learns to make decisions by interacting with an environment

Project tasks

The primary goal of this thesis project is to pioneer an advanced framework for optimizing through-partner social engagement within the IT Channel Industry. The project tasks are intricately designed to address the challenges and complexities inherent in this domain. The key objectives set for the project are as follows:

1. Mathematical modeling of the vendor-partner network.
2. Data-driven strategies for social post scheduling
3. Implementation of a reinforcement learning-based control system.
4. Validation through experimental implementation.

This master thesis project is done in cooperation with Channext.

