

WHITEPAPER BASED ON CROWDSOURCING EVENTS

HOSTED BY DEVOPS COMMUNITY
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GAMIFICATION TOOLBOX FOR DEVOPS



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CROSS-FUNCTIONAL BOUNDARIES ARE BLURRING, PEOPLE ARE MOTIVATED TO CROSS OVER INTO DIFFERENT ROLES

Taking the discussion from where we left with our previous whitepaper [“Leveraging the power of Gamification”](#), this whitepaper explores further gamification toolbox for DevOps.

Since the inception of DevOps culture, a decade ago we have been witnessing new working patterns in software industry. Cross-functional boundaries are blurring, people are motivated to cross over into different roles, collaborating informally to enhance the landscape. Subsequently, we have seen a rise in more coordinated channels and communities to create a set of ideas for further experimentation. To consolidate the ideas, these communities also fork out pilots and open-source initiatives from time to time to embrace and leverage the open ecosystem of knowledge and advance the DevOps persona types and skill set. Consequently, together we are constructing a choice of behaviors that lead to community culture.

How Gamification can support mindset shift required for DevOps?

Gamification can support creating a ladder approach to acquiring and utilizing new skills for continuous software delivery ecosystem, testing, security, and expanding the knowledge to leadership and coaches. However, underpinning collective wisdom through gamification, needs a systematic framework. We at DevOps Community of Practice, Canada engaged into a dialogue with various leaders in the DevOps communities to discuss the essential supporting structure for the gamification toolbox for DevOps.

Gamification can be applied to various industries and context but here we discuss to create a toolbox for DevOps which is centered towards software delivery. The purpose of the toolbox is to steer meaningful outcomes, better collaboration and faster software delivery. To set the direction for such a framework, we start by exploring a broader value proposition as outlined below.

- **Solve serious software problems, ideate and come together to create new knowledge!**
- **Remove fear and compel people to make the desirable shift, towards new ways to design, develop, deliver & operate software**
- **Learn in an empowering way by motivating collective action without bias**
- **Measure behaviors and not results as a first step**

Gamification toolbox - For DevOps

Before advocating for an enterprise-wide big bang approach it is advisable to experiment with small games. Continuously validating and deploying relevant games also requires to systematically keep it together. Here we are exploring how we would be creating a structure for collectively ideating, creating, validating and converge the outcome to measure progress for DevOps, through a gamification toolbox for DevOps. Our guest speaker Christopher Stone suggested simple ways to approach gamification for critical questions with tangible examples to start with which primarily are tried and tested with Agile practitioners:

- **Agile Battleships – The importance of feedback loops**

[Reference](#)

- **Outcome versus Output**

[Reference](#)

During the crowdchat we also explored other attempts of gamification. To outline a few:

- **Elevation of Privilege (and the variant OWASP Cornucopia)**
- **Squad Healthcheck (and the expanded variant Multi Team Software Delivery Assessment)**
- **Planning Poker gameplay (focus on outlier)**
- **Code Quality games (focus on DevOps practice onboarding)**
- **Product Design Box Game (focus on value delivery)**
- **DevOps – Leadtime Game (focus on cross-functional collaboration)**

Finding ways to make gamification relevant for everyday DevOps and consolidate the efforts to scale by supporting it with right data is critical. Getting the entire organization involved in a fun way to learn, share and experiment via gamification can be powerful. The above examples of gamification help us to understand that a cultural change is the most important aspect for DevOps adoption. Effective collaboration in a remote environment can be difficult, and we need to foster new ways, adopt new tools and techniques for engagement. However, as problem that we solve today may not be relevant tomorrow like new security threats will emerge, diverse operational issues and bottleneck for software would require critical thinking, organization will have modern software supply-chain efficiency problems. We will have to continuously enhance our gamification toolbox with games that address new and complex software problems. This would require us to think about systematic onboarding of games into the toolbox

Gamification toolbox

- Focus on team

To outline a systematic framework, it is central to start with the most important asset - our teams. A team needs to contribute to the game design rather than parachute in a non-aligned game. It makes us think that gamification is another process that needs to be learned as an individual, team and business in order to progress! Gamification toolbox for DevOps is not created in a vacuum, and there is no way that it is independent of persona types. As personalization of gamification remains a challenge, designing incentives which work for different persona types can be overwhelming to start with

Gamification toolbox

- Game ideation

Another critical component of the framework would be to collectively ideate our games with a view on the biggest challenges for DevOps at scale. Revisiting our whitepaper <https://devops-summit.capitalcarbonconsulting.com/white-papers/scaling-devops/> suggests we need our games to create positive change, harmonize collectively. Making the gamification process more inclusive is the first step in the process. Allow the teams to ideate themselves, build it and follow within the team. We also understand that the games should be working in a synchronized way integrating into the bigger picture.

- Our games should focus on individual buy-in as well as teams for adoption of DevOps practices
- Tangible business objective, some examples can be optimizing lead-time by exploring options
- Ideating games which help us understand strategic capability in DevOps pipelines
- Driving value stream maturity scores
- Reducing alignment gaps between speed versus value (value discovery challenges)
- Gamification to optimize growing toil through automating complex tasks
- Gamification for unlearning & relearning incross-functional teams-

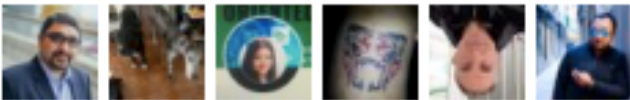
We explore broad categories to simplify. On one end, we will come across business-centric persona types which gives priority to economic growth over other concerns, how we reduce and optimize cost of DevOps. On the other end, a people-centric persona emphasises the role of exploring people potential within an organization, gives priority to collaboration over economics of the outcome. Naturally, only a minority of people identifies with either extreme, while the majority lies somewhere in a continuum between the two. The results start coming together once we have influence and learning coming from different persona types and craft a common path collectively.

It is needless to mention that gamers who are taking part share responsibility as well.

- **There is a need to be inclusive**
- **Provide feedback on rules which encourage learning, cooperation and achievement**
- **Help create points to promote fair recognition and promote success**

Chat Ended on Saturday, March 6th, 2021

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Express the important elements of a problem but conversations around the game table can result in action items being taken away that are very specific to the context.

Gamification

- Game Validation

As we move along to create the systematic framework, we need to investigate the mechanics of validation of the games, assessing engagement & incentives. According to our expert's organization can expect a bit of disturbance and downward effects at initial stages. But once that phase is through, the effectiveness and productivity will only increase. We should address to moderate the negative effects by applying early validation. We must be able to identify the limiting factors of the gamification toolbox and continuously enhance with new challenges to keep the momentum.

- Incrementally add features (mini-games) to your gamification toolbox
- Do not bring complexity, achieving & ensuring to keep it simple & user-friendly
- Your gamification toolbox must be able to move everyone forward adopting DevOps practices
- Prioritizing building DevOps community over tools/individuals
- Not every problem can be solved through gamification, choose wisely
- Triumphant & recognition is important but it is not the main goal

Here is a sample we received from participants as part of playing the online simulation of #DevOps



Advancing DevOps capability in an organization can be challenging, from creating a collaborative culture to transition into a new mindset for enhancing technical skillset. Deploying software features faster and in more secure manner requires leveraging collective wisdom & action. In order to orchestrate DevOps culture, we will have to ensure we apply different techniques for engaging & motivating our people. Roles plays, mind mapping, simulations, crowdsourcing, treasure hunts are some creative techniques. These techniques when converged with data-driven capability and eventually applying data science can help us move ahead in the curve. We also will have to be careful about bias & ethics, as one component in our gamification toolbox for DevOps.

Concluding the dialogue we asked the question to our experts, how to define a north star for gamification toolbox for DevOps? We have consensus that more experimentation & investment will be steered into experiential learning where gamification toolbox is one of promising candidate, however we will have to continuously steer and do course correction whenever required. The experts are skeptical about achieving maturity for the framework as it is too early in the process. We will revisit this topic in near future to ensure we bring new perspective on the progress & feedback.

With that, we conclude the whitepaper and encourage everyone to contribute and be part of the collective journey of DevOps. We thank all the contributors and specially [Christopher stone](#), for setting the perspective for the journey towards DevOps.

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