

Designing Corporate Hackathons With A Purpose

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This talk is based on our empirical studies of 10 hackathons

- **Hackathons held by**
 - **Scientific communities**
 - **A very large scale internal corporate hackathon by Microsoft**
 - **University hackathons**
- **Ethnographic observations at the event**
- **103 interviews with organizers and participants**
- **4 post-hackathon questionnaires**
- **Review of the published literature**

This talk focuses on how hackathons can be designed to achieve specific goals

{O} Organizational Goals

{P} Personal Goals

**Design Choices
and Trade-offs**

Hackathon organizers have various goals

{O} Organizational Goals

- Product innovation
- Enrich social network and reduce stovepiping
- Change the culture within the company culture
- Workforce development
- External image

Participants also have various goals that may be similar or different from organizers'

{P} Personal Goals

- Having fun
- Learning
- Win prizes
- Expand personal network
- Foster career
- Get the needed work done

Core Design Choices and Trade-offs

Core Design Choices

- Competition or collaboration
- Various ways of proposing and selecting projects (When and By whom)
- Self-selected or assigned teams
- How much preparation
- Promoting projects after the event

Pe-Than, E.P.P., Nolte, A., Filippova, A., Bird, C., Scallen, S., & Herbsleb, J.D. (2018). Designing Corporate Hackathons With a Purpose: The Future of Software Development. *IEEE Software*, 36(1), 15-22.

Competition or collaboration

Competition

Collaboration

Competitive hackathons foster innovation



<https://www.microsoft.com/en-us/garage/blog/2018/09/introducing-the-grand-prize-winner-of-hackathon-2018-a-project-team-exploring-new-paradigms-in-advertising/>

Collaborative hackathons enrich social network and facilitate learning



<https://techcrunch.com/2014/07/28/techcrunch-disrupt-hackathon-get-your-tickets/>

Competition



**{O} Product
innovation**

**{P} Win prizes, foster
career**

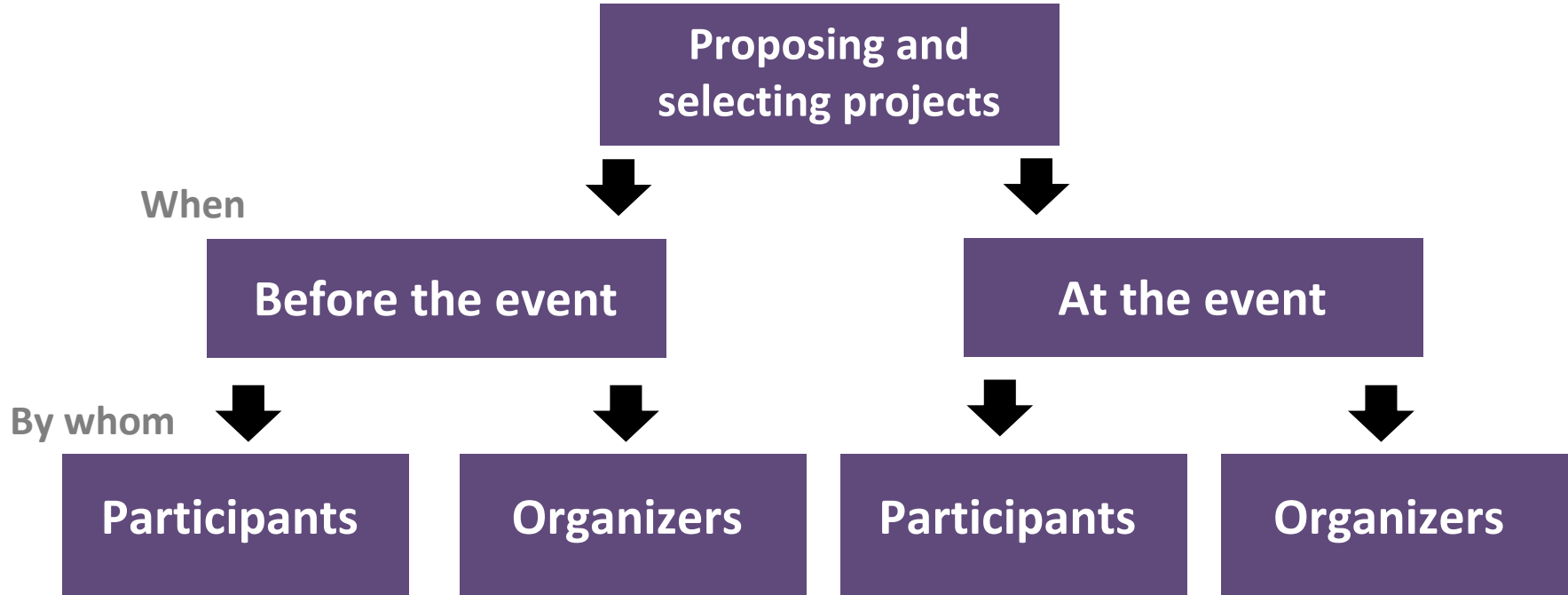
Collaboration



**{O} Enrich social
network**

**{P} Expand personal
network, learning**

There is a variety of ways to propose and select projects



Projects can be proposed and selected before or at the beginning of the hackathon

Before the hackathon with online tool

JavaScript toolkit for modular brain visualization #73

New issue

Open tyarkoni opened this issue on Jun 3 - 11 comments



tyarkoni commented on Jun 3

Name TBD

Project Description

There are quite a few JS brain image viewers out there, but they overwhelmingly focus on the rendering side of things rather than the UI side. The goal of this project is to develop a high-level, modular JS library that (a) defines a common API for viewers, (b) implements support for widely used viewers (e.g., Papaya), and (c) provides a set of customizable widgets/components that can be easily injected into new JS projects. If successful, users should be able to construct relatively sophisticated dashboards (including things like image thresholding and color assignment, customized orth views, multiple layers, etc.) in just a few lines of JS code.

Skills required to participate

All kinds of contributions are welcome, but the project is likely to benefit particularly from the involvement of people with JavaScript experience and/or general experience building APIs and architecting modular libraries.

Assignees

No one assigned

Labels

Hackathon Project

Projects

None yet

Milestone

No milestone

6 participants



At the hackathon



<https://github.com/ohbm/hackathon2019/issues/73>

Projects can be proposed by participants or organizers



Proposing and selecting projects

When

Before the event

At the event

{O} Enrich social network
{P} Expand personal network

Preparation
Team processes
Outcomes

By whom

Participants

Organizers

Participants

Organizers

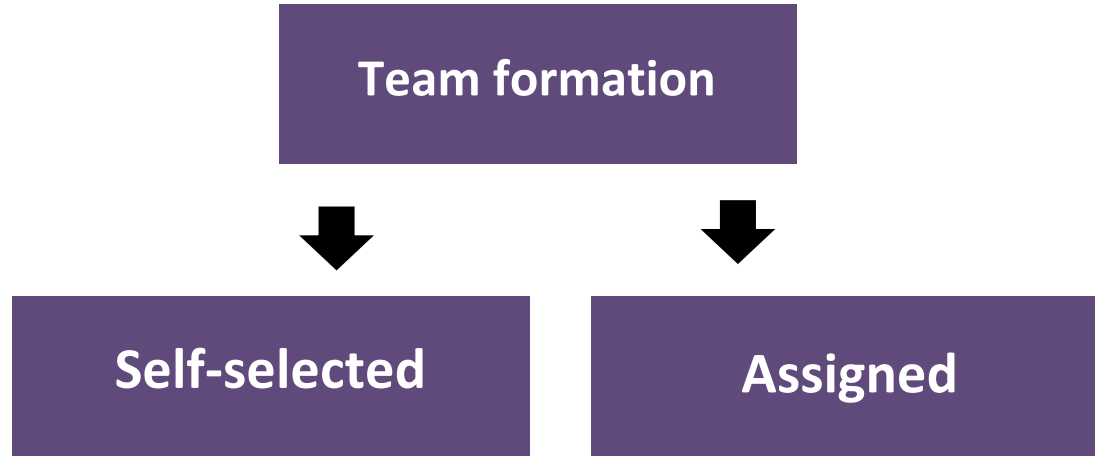
{O} Product innovation
{P} Having fun

{O} Learning, workforce development
{P} Learning

{O} Product innovation
{P} Having fun

{O} Learning, workforce development
{P} Learning

Teams can be self-selected or assigned



Trainer, et al. (2016). How to hackathon: Socio-technical tradeoffs in brief, intensive collocation. In *proceedings of the 19th ACM conference on computer-supported cooperative work & social computing, CSCW'16* (pp. 1118-1130). ACM.

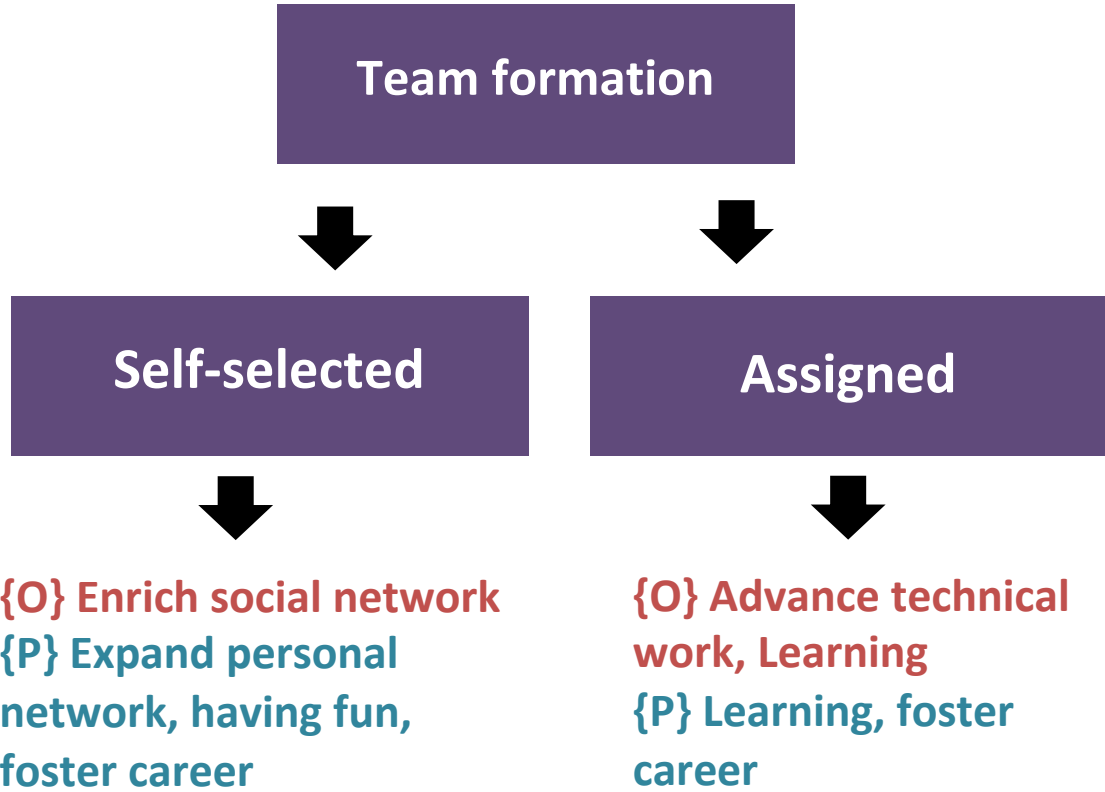
Self-selected teams with a desired mix of skills foster product innovation and learning, and enrich social network



Teams with novices need mentoring, brainstorming, and tutorial sessions to support inclusiveness and foster learning



Filippova, et al. (2017). From diversity by numbers to diversity as process: supporting inclusiveness in software development teams with brainstorming. In *Proceedings of the 39th International Conference on Software Engineering, ICSE'17* (pp. 152-163). IEEE Press.



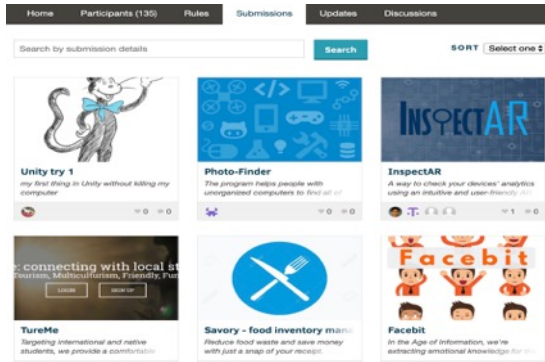
Preparation is important for teams with projects chosen ahead of time to hit the ground running



Trainer, et al. (2016). How to hackathon: Socio-technical tradeoffs in brief, intensive collocation. In *proceedings of the 19th ACM conference on computer-supported cooperative work & social computing, CSCW'16* (pp. 1118-1130). ACM.

Organizers need to provide opportunities for teams to find a home for their projects

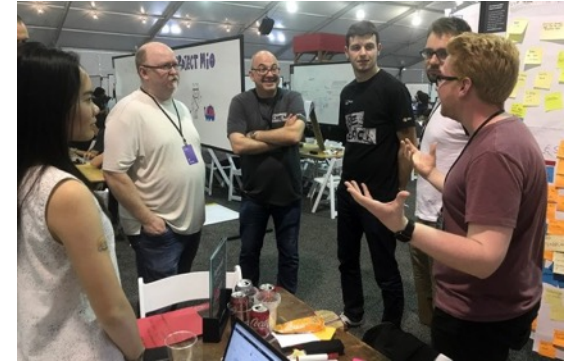
Online tool



Science fair



Presentations to different groups



Nolte, et al. (2018). You Hacked and Now What?:-Exploring Outcomes of a Corporate Hackathon. In *Proceedings of the ACM on Human-Computer Interaction 2, CSCW'18*, Article 129, 23 pages. ACM.

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Questions?

References

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