Trends in Organizing Philosophies of Game Jams and Game Hackathons

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ABSTRACT
Game jams and game hackathons are proliferating at a significant rate. It is not merely the number, but also the variety of these game creation events that have been increasing. In this paper, we examine several prominent organizing philosophies that are often cited when producing in-person versions of these events. The approaches differ in target demographics, goals, facilities and logistics. We analyze unpublished sets of statistics and user feedback data previously to further explore some of the distinct approaches.

Categories and Subject Descriptors
K.8.0 [**Personal Computing**]: General – Games; K.3.2 [Computer and Information Science Education]: Computer science education

General Terms
Design, Experimentation, Human Factors, Games, Game Jams

Keywords
Global Game Jam, Game Design, Programming.

1. INTRODUCTION
Game Jams are growing in kind and number. One non-definitive count indicates 127 public game jams in 2014 alone [1]. Most of these are open to anyone from around the world. The largest game jam, the annual Global Game Jam (GGJ) has continued to grow in size and importance since 2009 [2, 3, 4].

We find that game jams are organized around different philosophies and approaches. Goddard, et al. identify three categories of independant (indie), industry and academic [5] based on shared goals. We would also like to consider organizing philosophy, or the answer to the question "What makes this jam different?" The question is more important if the jam requires physical investment, such as an entry fee or in-person presence. The question goes beyond the rules of the game jam. We believe constraints such as of time frame, theme or platform restrictions often embedded as part of the participation rules are not necessarily the primary motivators for participation. Jammers see themselves as part of a larger narrative around the organizing philosophy. When jams were rare, the exciting narrative was simply the novelty of being a part of a game jam. Now, game jams inspire jammers around common interests and associations such as regional affiliations, setting, technology, career advancement, social topics and charitable causes. Obviously, overlaps exist within these distinct approaches, as they would with almost any such list of categories, but typically one factor is dominant and may be used as the primary outreach vehicle. The research community may find it useful to employ these distinctions as we explore them below.

2. ORGANIZING PHILOSOPHIES
We present the following categories based on organizing philosophies we have observed. Table 1 presents examples for each category.

Table 1. Organizing Philosophies

Category	Examples
Regional affiliation	Global Game Jam [3], Nordic Game Jam [6], ToJam [7], Scottish Game Jam [8], Finnish Game Jam [9], Kiwi Jam [10]
Setting	TrainJam [11], Plane Jam [12], Swiss Castle Jam [13], Phoenix Comicon Game Jam [14]
Technology	Intel XDK Jam [15], Game Salad Game Jam [16], LOWREZ Jam [17], HTML5 Jam Paris [18], Text Jam 2014 [19], PROCJAM [20], AI Game Jam [21], FGL Game Jam [22], Paper Jam [23], Point and Click Jam [24]
Career advancement	Microsoft Imagine Cup [25], Student Game Developers Competition [26], industry organized internal jams, The Arbitrary Game Jam [27]
Social/charitable topics	Fukushima Game Jam [28], Games 4 Change [29] , Games 4 Diversity [30], Games 4 Research [5], Games for Health Game Jam [31], Code for Good [32], Asylum Jam [33], Indie Quilt [34], National STEM Challenge [35]
Challenge	One Game a Month [36], Ludum Dare [37], Glitch Jam [38], F*** This Jam [39], Insanity Jam [40]

2.1 Region focused
These jams are organized around a region: a part of the world, a few cities, a country, or the entire world. As examples we can cite ToJam (Toronto area) and Nordic Game Jam (Scandinavia) which in turned inspired Global Game Jam (the World). The primary

distinguishing characteristic for these jams is the actual region. Jammers find it exciting to support these jams as they see themselves as part of that region.

Game jams have the potential to foster local communities and clusters of jams, such as the Finnish Game Jam (FGJ), where all sites participate in the GGJ, but also identify as part of the community called the Finnish Game Jam. A Finnish participant will have to sign up on both the FGJ as well as the GGJ site in order to participate in the Global Game Jam [14]. Whether this building of a local identity will be detrimental to GGJ or beneficial in the long run, remains to be seen. In at least one instance regarding The Nordic Game Jam (NGJ), the event was moved to a couple of weeks later, as the brand and organizing of the event was deemed as clashing with GGJ by the local organizers. Regardless of other affiliations, both FGJ and NGJ are considered regionally focused jams in their own right.

2.1.1 The Global Game Jam

In 2013, Fowler et al. [2], reported on the status of the Global Game Jam. Figure 1 shows the continued growth of the GGJ up to 2015. In 2009, there were 53 locations from 23 countries that participated in the GGJ. 2010 saw an increase to 138 locations in 39 countries. In 2011, there were 168 locations from 44 countries. In the following year (2012), there were 242 locations from 47 countries that participated in the GGJ. In the 2013 GGJ, there were 312 locations from 63 countries that participated. In 2014, there were 488 locations from 72 countries and in 2015, there were 519 locations from 78 that participated.

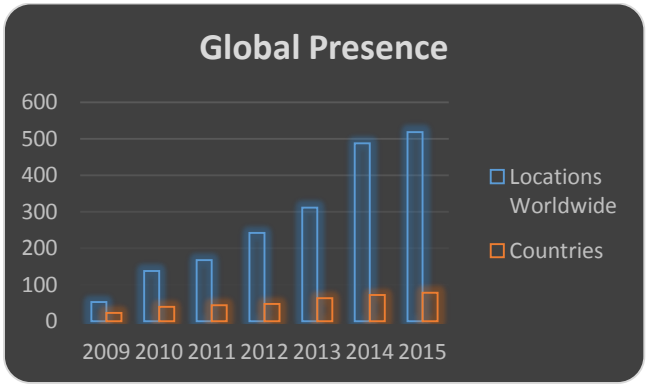

Figure 1. The growth in Global Game Jam sites.

In Figure 2, we present the growth of the number of participants from 2009 to 2015. As detailed in Figure 2, in 2009, there were 1,650 registered participants, in 2010, there were 4300 participants and in 2011 there were 6,500 participants. In 2012, the number of participants increased to 10,684 and in 2013, there were 16,705 participants. In 2014, the number of participants grew to 23,189 and in 2015, there were 28,837 participants. While the number of participants has continued to grow, the increase in participation has subsided. However, the number of participants has continued to grow at an average rate of 66% (Figure 2).

Regionally focused jams have experienced tremendous growth. We examine the trends within Global Game Jam and the Kiwi Jam as representatives below.

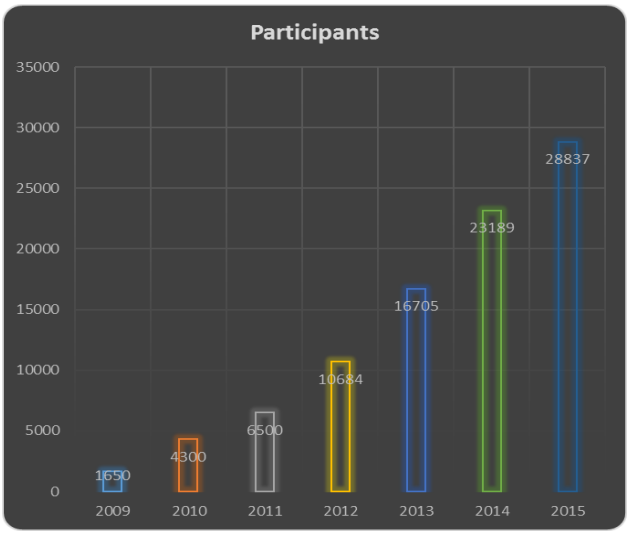

Figure 2. The growth in Global Game Jam participants.

The number of games submitted has also continued to grow (Figure 3). In 2009, there were 370 games submitted. 2010 saw 900 games being submitted. In 2011, there were 1,600 games submitted and in 2012, there were 2,209. In 2013, there were 3,248 games submitted. In 2014, there were 4,292 games submitted and in 2015, there were 5,439.

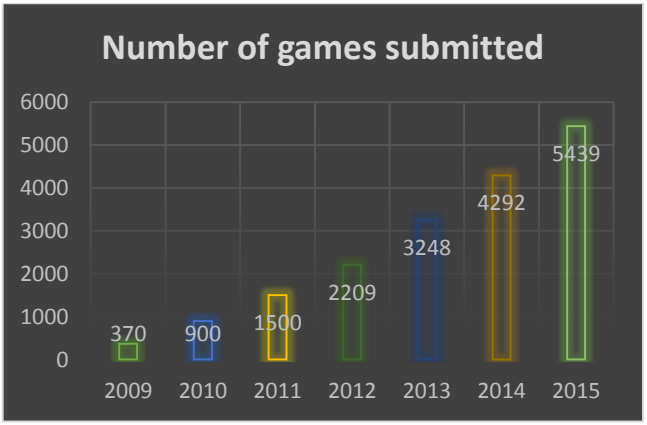

Figure 3. The growth in submitted games.

The growth of the non-North American and European-based game jams has plateaued, and the major growth can be identified in both South America and Asia [2].

2.1.2 The Kiwi Game Jam

Another recent adaptation of the Global Game Jam is the Kiwi Jam [10]. This game jam event is specifically targeted at participants who want to engage in a game jam event during their winter. In the southern hemisphere, the GGJ is scheduled for the middle of summer. Anecdotal evidence suggests that the timing (during the academic summer vacation) has an impact on the availability of suitable venues, students, and organizers who may normally want to participate. The Kiwi Jam in its first year appears to have found an appropriate time and venue that is more suited to that region. In 2014, the first Kiwi Jam, attracted over 50 participants in one venue [10]. This event is forecast to run in three venues across New Zealand in 2015 and is expected to attract more than 100 participants.

2.2 Setting focused

A relatively recent trend, the setting can be used to draw intrigue and interest from the jammer community. Setting-based jams are interesting either because the setting is simply unusual or exceptionally beautiful, or because the setting poses some unique challenges. The setting can also be the site of an event such as a conference, workshop or association meeting. The common attribute is the leveraging of the setting to attract jammers.

Swiss Castle Jam, a constituent jam of the Global Game Jam is an event that takes place at the *Musee Suisse du Jue*, housed in an actual castle. The Phoenix Comicon Game Jam [14] is co-located with Comicon, drawing most of its participants from Comicon attendees. TrainJam [11] takes place aboard an actual Amtrak train route from Chicago and arriving in San Francisco right before the annual Game Developers Conference. An airplane version, Plane Jam [12], has occurred as well.

2.3 Technology focused

Sometimes technology can be a great constraint. Technology focused jams constrain the development process around a particular tool (Intel XDK Jam [15], Game Salad Game Jam [16], FGL Jam [22]), or a general technological limitation (LOWREZ Jam [17], Text Jam [19], Paper Jam [23], Point and Click Jam [24]). The latter technological limitation may not necessarily be about interfacing technologies. PROCJAM (Procedural Content Generation) [20] and AI Jam (Artificial Intelligence) [21] are examples of game jams where the technological constraint is completely independent of modes of user interaction.

Learning new skills is both a primary motivator and outcome of technology focused game jams.

The Intel XDK Jam was a 24-hour jam held on the campus of the California Polytechnic State University in February, 2015. The event started with a technical session attended by close to a 100 students, followed by the jam itself, attended by about forty students. An anonymous survey of twelve game jam participants shows the vast majority of participants learned new skills and improved their existing technical skills. Figure 4 shows the survey results.

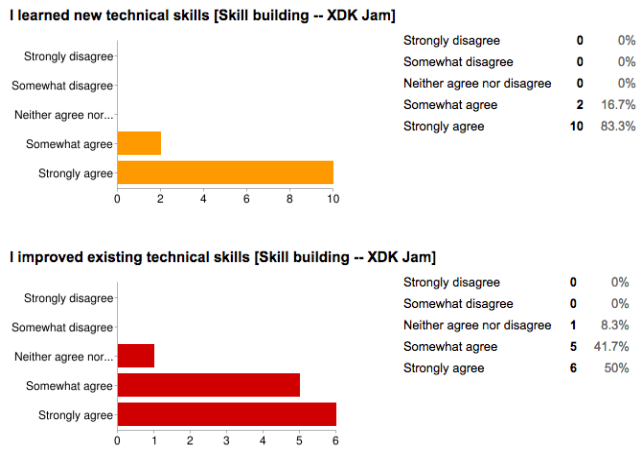

Figure 4. Intel XDK Jam technical skill questions

The survey also asked about soft-skills, defined as non-technical, teamwork and group interaction abilities. As shown in Figure 5, the majority (9 of 12) indicated they improved their soft skills as well.

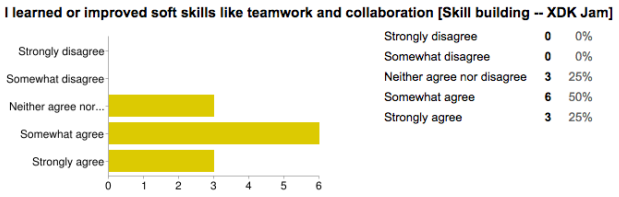

Figure 5. Intel XDK Jam soft skills question

2.4 Career advancement

In this category we distinguish those jams that have clear monetary or career recognition values. These jams are almost always competitions where the rewards are significant enough to become the primary motivating factor. Community recognition often fulfills a similar motivating factor.

Microsoft Imagine Cup is an example of such a high-reward contest that attracts participants from around the world [25]. Though companies sponsor such competitions, they need not be corporate events. The Student Game Developer Competition, an independent game competition with multiple platform tracks was held in Tehran, Iran in 2014 [26]. The rewards posted were in thousands of dollars (USD), and the winning teams had a chance to fly to Tehran for the closing ceremonies. Another example is the Arbitrary Game Jam, an indie produced event with the stated goal of career advancement for the winning projects.

Another growing trend is the corporate jam [5], an event meant to inspire and motivate the workforce, and sometimes directly lead to product development. Often open only to company employees for legal and logistical reasons, these jams are also in the "career advancement" category because they directly or indirectly benefit the company the participants work for.

Educational game jams in context of universities can also be considered career advancement. Both Fowler et al. [3] and Goddard et al. [5] posit the potential benefits for students and industry. Fowler et al. [3] suggest that Game Jams can be used as a platform for developing a prototype for student final year (or capstone) projects or independent study projects. Goddard et al. [5], point to the potential benefits of game jam type events that are used by game developers to generate new ideas and/or games.

2.5 Social and charitable theme

Many recent jams have been created to fill specific niches in certain non-profit communities [41, 42, 43]. The Microsoft sponsored National STEM Challenge [36] seeks to create interest in STEM fields. Asylum Jam [33] seeks to raise awareness of mental health topics and their usage in games. Fukushima Game Jam has been created to help the disaster-affected region to recover [28] from the 2011 nuclear power disaster. We briefly discuss two of these jams in more depth below.

Deen et al. [43] created a number of game jams for academic purposes, and awareness. In 2013, the first Game Jam for Research (GJ4R) was established at the SIGCHI in Paris, France [44]. The purpose of the GJ4R was to bring like-minded academic researchers and scientists to facilitate the exploration of the problem space and solutions for interaction design. This focused event was limited to 2013 and 2014. The result of this game jam provided a foundation for similar events that were developed by the participants and/or organizers. Events like the Game Jam 4 Health [41] and the Game Jam 4 Diversity [42] appear to have been inspired by the same ideas.

Intel's Code for Good initiative [32] aims to leverage game jams for societal betterment. The specific causes can differ in each iteration. The initiative invites charity and cause representatives in as subject matter experts. The participants are informed on the details of some social or community topic (e.g. early literacy, STEM education, childhood obesity) and produce games to mitigate problems or increase awareness [32].

2.6 Challenge

This category is for game jams that have seemingly arbitrary challenges designed mainly to create a "fun" motivation for participants to keep up their game design and development skills. The challenges can be based on timing, theme or participation. Unlike some of the other categories the very idea of game design itself is the motivating factor here.

Ludum Dare [37], a well-established and long-running online game competition has the primary distinguishing feature that it is accelerated and held multiple times a year. It has experienced significant growth in the past few years with the April event reaching over 2800 submissions. Similarly, One Game A Month [35] challenges participants to keep up a regimen of production throughout the year.

F*** This Jam [39] is organized around the idea of building a game in a genre one hates. Glitch Jam [38] posits the playful challenge of creating a game with an intentional glitch in it. Insanity Jam [40] is based on a random theme selection process.

3. CONCLUSION

Game jams can be broken down by organizing philosophies which, in essence, is how a jam distinguishes itself from other events. In this paper, we provide a set of organizing philosophies with example jams for each. We hope this categorization method can be augmented and improved by the community as we move toward a more definitive understanding of game jam organization and motivation in the future.

4. ACKNOWLEDGEMENTS

The authors would like to thank the members of the Global Game Jam Research community for their continued support. We also thank the publishers at Compohub [1] for providing a great list of active game jams.

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