

### HACKATHONS: A FIELD OF DREAMS FOR 'COLLABORATIVE INNOVATION'?

A review of recent studies Nada Endrissat

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#### **Tribune**

# Hackathons: A field of dreams for 'collaborative innovation'?

#### A review of recent studies

#### > Nada Endrissat

hat's in a name? In the case of hackathons, the name itself succeeds in revealing  $\prime$  its message and program. While 'hacking' triggers association with activities of disruption, subversion, or the breaking of rules, 'marathon' suggests an extreme event in which participants rise above their limits, in which inevitable exhaustion is linked to ultimate thrill. Putting the two together, hackathons epitomize the entrepreneurial spirit of the Silicon Valley in an unprecedented way: in temporal, intensive, sprint-like events, computer programmers, designers, project managers and other experts come together to improve or develop new software solutions for social, cultural, economic or ecological questions. Fast-moving, connected, with a focus on solutions and prototyping, hackathons are considered to represent a 'new way of working'. Given that they are neither bureaucratic nor regulated, they provide a fun, cool, and inclusive environment for participants who bring to the fore completely new perspectives and solutions. Hopes are high, challenges pressing: food safety, climate change, data security, and youth unemployment. The themes for potential topics that participants at hackathons tackle are endless. In straightforward, unpretentious and efficient ways, experts from different disciplines work collaboratively on innovations. By sharing their knowledge and supporting each other, they not only find new solutions but also mark a difference by the change they hope to bring about. Hackathons constitute a field of dreams for collaborative innovations that benefit everyone.

But what is in a name, really? What do we know about the people who participate in hackathons, what do they produce, and who benefits from hackathons? In this review, I provide a short summary of four recent empirical studies that have started to examine hackathons from a more critical perspective to provide a more nuanced understanding of the phenomenon.

In her 2015 article 'Hack for good: speculative labour, app development and the burden of austerity" Melissa Gregg<sup>1</sup> discusses the popularity of civic hackathons to rebuild the social in times of austerity. Unlike corporate hackathons that are primarily concerned with the production of technical solutions, civic hackathons focus on social innovations for the public sector, including questions of governance and public life. For this purpose, activists, citizens, entrepreneurs, and coders are drawn together to develop new apps or platforms for open data (e.g. hackforchange.org; codeforamerica.org). Over a period of 18 months, Gregg observed a number of (civic) hackathons including sponsor meetings, research presentations and hackathon organizers. She notes that the overall framing of those events celebrates private solutions to public problems. However, her main concern is not the structural political impact of hackathons but what we can learn about the nature of work that is 'donated' in the name of 'community service'. Drawing a parallel with the creative industries, she portrays hackers as new role models for living 'the entrepreneurial life' in which daring, self-directed, and passionate employees invest speculative labour in the hope of achieving beneficial (but highly uncertain) outcomes. In an economy defined by fluctuating employment opportunities, voluntary, portfolio filling, speculative, sacrificial, or free labour have become the 'new working norm' and in which absence of pay is taken for granted. "Civic hackathons are positioned as rational investments of time and labour, a socially beneficial and distinguishing

extra-curricular activity in the cut-throat market for viable, fulfilling and ongoing work." (p. 185). This seems particularly true for North America but it is also detectable across Europe. Inspiring a sense of citizenship duty (a mixture of civic service, patriotism and a sense of duty) considered highly beneficial to local, state and federal governments as it buffers the adversities of austerity measures, hackathons also offer citizens the opportunity to experience agency ('We can do it!' attitude) and to take an active part in politics. She further notes that participation in civic hackathons is a privilege, which perpetuates itself, and is further accelerated by technological advancements. Data literacy is a pre-requisite for participation and given that it is unequally distributed, those who take part are not representative of the whole population.

"Those with the skills and smarts to withstand the accelerated conditions of app production thrive on the entrepreneurial confidence that comes with established social and technical networks. For the many who are less materially equipped for the evacuation of workplace protections and the withering of social infrastructure and services, the future for economic and civic participation is less assured." (p. 194).

While Gregg (2015) discusses the potential of hackathons as momentary "experiments in democracy that strive towards a reconfigured relationship between citizens, the state and capital" (p.195) her analysis ends on a critical note. Because the 'wins' of free labor are only ever theoretical and reserved for a privileged few, the ideals of "self- and civic governance enjoyed in earlier times" (p. 195) can no longer be reached. Hackathons are

<sup>1</sup> Gregg, M. (2015). FCJ-186 Hack for good: Speculative labour, app development and the burden of austerity. *The Fibreculture Journal*, (25 2015: Apps and Affect).

emblematic of a highly insecure enterprise culture. They do not offer 'upward mobility' but rather contribute to normalizing precarity. Hackathons can thus be characterized as a trap.

In "Hackathon and the making of entrepreneurial citizenship", Lilly Irani<sup>2</sup> (2015) provides insights into what is being produced in the context of a hackathon in the non-profit sector in India. She draws from her ethnographic experience as one of seven participants in a hackathon that set out to address the issue of 'open governance' with the goal to enable poorer Indians to "communicate with and hold their elected officials accountable" (p. 15). The hackathon she bases her analysis on lasted five days and was part of a greater festival on Indian nationbuilding. Her arguments are a mixture of field report and analytical reflection. They can be summarized using five themes: A discourse filled with optimism—the hackathon exemplifies and celebrates a view of technology and entrepreneurship that is filled with optimism, development, and progress. The main rationale is to provide an alternative to state planning. Focus on action describes the general sentiment of the hackathon participants. They exploit the engineering and hacking culture to coax "machines and code into compliance" (p. 14). The basic tenet is to make things work even if the solution provided is non-permanent or flawed. The focus on action is closely linked to the imperative of 'moving forward'—the prioritizing of speed over content as a component of the idealization of speed. From the beginning, participants experienced severe time

pressure and time anxiety as a result of the constructed sense of urgency imposed. This made a collaborative understanding of the task impossible and instead. emphasized pragmatism and political flexibility in order to produce an acceptable output (demo) within the set time limit. The fourth theme might be called inclusion/exclusion. Irani (2015) describes the socioeconomic background of the participants and notes their privileged position in society. Like Gregg, she concludes that the affluence that characterized the hackathon participants was in stark contrast to the people who were supposed to benefit from the innovation. The hackathon thus did not succeed in including the imagined beneficiaries. Throughout the course of the hackathon, it became clear that the event could not accommodate those for whom it claimed to care. "There was no time to care by drawing in those who have been silenced... There was only time for the entrepreneurial spirit" (p. 20). The last theme, which I call the impossibility for innovation shows that the hackathon was unable to produce a workable innovation. Instead, the team worked on a slide presentation that summarized the solution in a way that suggested a viable approach. This would supposedly impress the audience but there was no innovation nor was there evidence of the improvement they were hoping for. While this failure might be disappointing, it did not surprise anyone (p. 15) as Irani laconically states. "Those who managed to build demos might show them off, speculate about their futures, promise to continue the work, or just shake hands and say goodbye" (p. 5). Why are people than willing to invest their resources in those events? In discussing her findings, Irani presents her main argument: hackathons sometimes

<sup>2</sup> Irani, L. (2015). Hackathons and the making of entrepreneurial citizenship. *Science, Technology, & Human Values*, 40(5), 799-824.

produce innovations, but they almost always provide the opportunity for agency and entrepreneurial subjectivities.

"Although hackathons ostensibly produce ''demos'' [software prototypes], this article argues that hackathons more powerfully produce entrepreneurial subjects. They manufacture urgency and an optimism that bursts of doing and making that can change the world. Participants in hackathons imagine themselves as agents of social progress through software, and these middle-class efforts to remake culture draw legitimacy from the global prestige of technology industry work practices." (p. 2).

Linking her contribution to Science and Technology Studies, Irani concludes that hackathons can be seen as sites of social practice where "techniques from information technology production become ways of making culture". This directs STS's attention to how technological practices themselves become models extending into other parts of public life: Hackathons become a vehicle to push forward enterprise culture and entrepreneurial citizenship. Hackathons can thus be characterized as heralding 'entrepreneurialism at work'.

In "Hackathons as co-optation ritual: socializing workers and institutionalizing innovation in the 'new' economy", authors Sharon Zukin and Max Papadantonakis<sup>3</sup> draw from ethnographic observations and 46 informal interviews (32 with hackathon participants and 14 with organizers)

across seven U.S. corporate-sponsored hackathons. Their analysis focuses on the meaning, motivation and tension of hackathons. Similar to the studies by Gregg and Irani who studied hackathons in the public and non-profit sector, Zukin and Papadantonakis identify aspiration as a central theme. They suggest that participants are motivated to participate in hackathons because of the opportunity to become 'agents of change'. The organizers further fuel participants' motivation "to develop innovations" and "change the world for the better" by stressing that the participants are 'the best' and the corporations themselves are there to help them get their ideas across and out to the world, downplaying the company's own interest in the outcomes achieved. The theme recreation and career captures how participants legitimize their time and skill investment in the hackathon. Drawing on the mantra 'work is play', some participants stress that hackathons compensate for what is missing in their daily jobs (creativity, meaning, fun and pleasure, being a member of a 'cool' subculture), while others emphasize the learning, networking and collaboration which are considered central aspects to advancing their own career. However, the hoped-for-benefits do not always materialize. Instead of knowledge creation, hackathons seem to accentuate a tech-faith in the participants. "You can compare it to fanboyism, the blind, aggressive devotion that fanboys show to comic books, video games, etc. It's all about changing the insular culture of tech companies" (p. 174, emphasis in original). Likewise, the potential of hackathons as a recruitment tool cannot be confirmed. According to the interviewees, hackathons do not seem to be able to replace traditional job interviews or tests.

<sup>3</sup> Zukin, S., & Papadantonakis, M. (2017). Hackathons as Co-optation Ritual: Socializing Workers and Institutionalizing Innovation in the "New" Economy. In *Precarious Work* (pp. 157-181). Emerald Publishing Limited.

The study further suggests that hackathons are not able to produce innovations, that is, sustainable ideas that could be turned into marketable products. More often than not, the prototypes remain unfinished. At the same time, hackathons are used as a way to outsource work and crowdsource innovation that "increase the chances of developing marketable prototypes without adding labor costs" (p 177). Here, a contradiction in the argument can be observed that is—unfortunately—not resolved. Instead, they move on to argue that hackathons are able to produce reputation (rather than innovation). They allow companies to maintain their 'cool profile' and to "showcase innovation" (p. 175). Taken together, the study reiterates earlier findings and adds some new ambiquities. But the analysis does not move beyond a descriptive reflection and no theorization is offered. The authors conclude that while the four themes reflect a calculated self-interest on the personal (participant) level, the power asymmetry continues to favor the corporate sponsors. Hackathons can be characterized as a cooptation ritual.

The last study, "Characterizing hacking: mundane engagement in US hacker and makerspaces" by Sarah Davies<sup>4</sup> follows in the tradition of Coleman's landmark book Coding Freedom. The ethics and aesthetics of hacking<sup>5</sup>. It explores what hacking means and how 'ordinary hackers' talk about what they do. In her study, Davies conducted 30 interviews across 12 different hacker- and makerspaces. Despite the fact that hackerspaces are not the same

as hackathons, Davies' exploration shows many parallels with the description of hacking in the context of hackathons. This is why her study is included here. The main interest of Davies' work is the alleged political dimension of hacking and its larger social impact. She starts with the tenet that hacking could "democratize technology and innovation" (p. 174). Yet, her findings—which are structured in two parts: what hacking doesn't do and what hacking does—suggest a different conclusion. Her viewpoint is straight-forward: Hacking is not political. Despite the grand discourse about hacking being a subversive, counter-cultural and political activity, the narratives of her respondents overwhelmingly suggest that hackerspaces are 'not places for politics'. Like the hackers in Coleman's study, the interviewees distance themselves from political action. "Political debate, the means for social change, and even the Occupy movement were viewed as inappropriate topics for conversations or activities within hacker and makerspaces" (p. 181). Instead, hacking provides a sense of identity. Under the heading hacking as lifestyle, Davies outlines the defining characteristic of a hacker as being a problem-solver who has little patience for limitations. The focus is on learning, tweaking, and sharing knowledge—intertwined with passion and enthusiasm. 'Just do it' seems to be the mantra of the hacker spirit, which, as Davies notes, is "not a set of practices but an all-encompassing habitus" (p. 184). Hacking is "central to the very core of their being" (p. 182), it is their lifestyle. In hacking as leisure, she continues to show the relevance of hacking for the hacker's sense of self. Like the other studies, Davies suggests that hacking is an identity project, rather than a source of financial income

<sup>4</sup> Davies, S. R. (2018). Characterizing hacking: Mundane engagement in US hacker and makerspaces. *Science, Technology, & Human Values, 43*(2), 171-197.

<sup>5</sup> Coleman, E. G. (2013). *Coding freedom: The ethics and aesthetics of hacking*. Princeton University Press.

which is why not everyone can 'afford' to engage in hacking: "Hacking was something that was layered on top of having met fundamental needs; it required you to not be "starving ... need money ... exhausted." It was an activity that was not essential to survival but would rather let you reach your potential, be the best you could be. In this sense, hacking was about personal empowerment" (p. 185) -and as such, a privilege. Hackers are able to derive a certain kind of pleasure and "distraction from work or other commitments". Interviewees also framed their activities in terms of marginality of being unusual and on the margins of society, an argument that links back to pursuing a counter-cultural lifestyle. In the last paragraph, Davies outlines how hacking provides (a sense of) community. Repeatedly, the interviewees stress the value of having access to a community, a 'tribe, 'your people'. It offers "the opportunity to be normal, to be in sync with others around you" (p. 187). Like Irani, Davies positions her work amid STS, human-computer interaction and new media studies. However, she does not make the implications of her findings to those communities very explicit. Her main conclusion is that the lived experience of the ordinary hacker does not re-produce the grand narrative of political activism that could translate into solidarity or social change. Hacking is thus characterized as a personally meaningful, but politically inconsequential, leisure activity.

## Food for thought for future research

Something is going on at hackathons that is for sure. And that something needs further exploration. Sound empirical studies

about hackathons are still rare and theorization almost completely absent. Much of existing research is anecdotal, reflecting either the technology-brightfuture-optimism or the more sociologyinspired-critical-warning. The four studies that were briefly summarized here tend to favor the latter, providing food for thought for future research. This is my short-list:

- Hackathons are not inclusive and the idea that the tech ecosystem is open and accessible is a myth. The majority of participants is still male, Caucasian or Asian, with college degrees, affluent, and young. Hacking is a privilege and tends to further accentuate the difference between those who are able to participate and those who are left behind.
- Hackathons might produce collaborative innovation. However, the constructed sense of 'urgency' at hackathons leaves little time for critical questions and reflections. They produce a focus on pragmatic (quick fix) solutions and emphasize the need for good presentation skills (Life is a pitch!).
- Hackathons can produce entrepreneurial subjectivities, a feeling of belonging and a community. They enable lifestyles and represent (serious) leisure activities that blur the boundary between work and non-work. Hackathons are thus a crucial site for (professional) identity work and constitute a space where work, play and labor intersect, constituting new sites and ways of working, organizing and being (subjectivities, lifestyles).
- Hackathons are not political—but ideological. By mobilizing participants' aspirations to see themselves as agents of (social) change, hackathons ensure enthusiastic participation and personal

benefits, but not 'real' political action or collective forms of solidarity. For the sake of 'forced' collaboration, differences in opinion are swept aside or neutralized. Instead, hackathons reiterate tech culture's fantasy of being the motor of innovation and change that benefits everyone while insiders acknowledge that an open tech ecosystem is a myth.

- Hackathons represent a new business strategy that legitimizes outsourcing by crowdsourcing innovation. In the public sector (civic hacking) suggests that Statefunded agencies can be cut back because hackathons provide 'better' solutions than tax-financed agencies. By accepting to provide free labor to governments, agencies and corporations, hackathon participants contribute to the legitimization of working 'without pay' and the further dismantling of secure employment opportunities.

Despite these ambiguities and tensions that are not only characteristic of

hackathons but of contemporary worlds of work more generally, the potential for collaborative innovation and (social) change is still palpable. And for sure, some hackathons are fun! Some are inclusive and some really bring about collaborative innovations. But as the review of studies from North America and India suggests, the hegemony of hackathons can also produce more ambiguous consequences such as co-optation. A closer analysis of the inherent dynamics and struggles might "save hackathons from themselves" and re-orient attention to their original aims to disrupt and search for viable alternatives that benefit the majority, instead of a chosen few. 48 hours might not suffice to achieve this. The name 'slowhack' might offer a more suitable message and program for collaborative innovation to achieve its potential. But then again, what's in a name?

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