Gaining Insights from Poetic Collaboration as a Way to Inform Teamwork in Technological Design

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Abstract. We report a study examining the nature of collaboration in poetry composition in order to inform the optimisation of teamwork processes in technological design. Our interview-based data, derived from five expert poets, clarify the positive value of collaboration in providing objective critique on outcomes, while also indicating that collaboration can stifle originality. One intriguing observation is that collaboration with specific individuals (e.g., mentors) may have a natural progression leading to an end-point where predictability brings loss of utility. Our findings confirm that groups are sources of both positive and negative interactions, such that careful cost/benefit management is essential for collaborative design success.

Keywords: Creativity, collaboration, teamwork, poetry composition, systems design, design practice, design management

1 Introduction

We are currently pursuing a programme of research exploring similarities and differences between expert processes in two creative domains: poetry composition and technological design. At first sight our interest in comparing expertise in these two areas may seem curious, not least because at a surface level they seem quite distinct in terms of contents and outputs. We contend, however, that at a deeper, structural level both domains have much in common, including a focus on tasks that are inherently complex, multifaceted and ill-defined.

The latter concept of "ill-definedness" refers to problems where the goal is vague, an optimal solution is potentially unachievable, and limitations of the problem space are not specified in advance but have to be uncovered (Simon 1973). In poetry writing, for example, the poet typically starts off with uncertain goals, unclear constraints, and an almost limitless set of actions that can be taken, although in practice an expert poet is soon likely to specify constraints that will serve to limit the space of possibilities (e.g., in terms of particular verse forms, rhyme structures and themes). Technological design likewise often embodies many open-ended elements with only partial or imprecise constraints being given up-front by the client (often relating, for example, to general factors such as cost, time, materials and resources). Some authors (e.g., Savage et al. 1998) suggest that design constraints can also be internal, relating to the designer's domain knowledge, or even inherent to the technical aspects of the particular design task itself (e.g., deriving from a product's physical characteristics such as its size). Nevertheless, despite the initial presence or subsequent emergence of some constraints in both technological design and poetry writing it remains the case that the initial point of both tasks is typically characterised by the presence of only partial or imprecise constraint information and a general sense of uncertainty as to how best to progress (cf. Ball et al., in press).

If one accepts the underlying isomorphism between poetry composition and technological design in terms of tasks, goals and constraints then this allows for interesting questions to be asked about parallels in the processes that play out in both domains relating to problem definition, creative idea production, and solution critique. Our existing research (Beatty & Ball, 2010) has already identified similarities across both domains in these respects, revealing, for example, the way in which poets and designers both adopt a "solution-focused" strategy that is exploratory and conjectural in nature (Cross 2006) and that is driven by early identification of "primary generators" (Darke 1979) that frame subsequent activity ("initial lines" in poetry writing; "core objectives and concepts" in design).

Our interest here is less with fundamental similarities in the processing in these domains, and more with the way in which the collaboration that arises in poetry composition might provide insights to inform (and potentially improve) team-based design. Our concern with collaboration is predicated on a crucial observation, which relates to a major difference in the way that it arises in the poetry versus design

domains. We often find groups of poets who self-manage their collaborative practices (through the use of editors, mentors and co-writers) and who self-organise their collaborative structures (in the form of workshops and writing groups). In the design domain, however, we often find designers in groups that are not of their own making and that fall into formal structures such as brainstorming sessions or design critique meetings (Ball & Ormerod 2000). The contrasting way in which collaboration arises across these two domains suggests that there may be important lessons that can be learned from the poets, who presumably organize their collaborations so as to maximise benefits and minimize costs. Such insights can inform the way in which teamwork opportunities might be enhanced for designers, who presumably have to tolerate the benefits and costs of collaboration in equal measure. In this respect we note the observation that despite the enthusiasm for design companies to place designers in creative, idea-generation teams, the empirical reality is, paradoxically, that such teams are often less creative than individuals (Warr & O'Neill 2005).

2 Method

2.1 Participants

Five participants (2 male; 3 female, mean age: 34.8 years) were recruited on the basis of having published poetry. Participants had between 10 and 60 published poems (mean: 29 poems). They had been writing poetry for a average of 9.6 years, and writing in general for an average of 16.4 years. Across the sample there were three short-story collections, one novel, two poem pamphlets, 13 individual short stories, and 145 poems. Two poets had a bachelor's degree and three had (or were pursuing) a masters degree.

2.2 Materials and Procedure

Participants were asked 11 questions which included predetermined prompts (see Beatty and Ball 2010 for a complete list of the questions). The experimenter customised additional questions during the interview. In this paper we focus on responses pertaining to the following questions: Do you use writing groups or writing partners? How do you find that process? What kind of outcome do you get from that? Did/do you have a mentor(s)? How did that relationship work? The responses to these questions were not included in the previous work. Participants were interviewed individually and the value of their personal observations was stressed.

3 Results and Discussion

The quotations presented below are participants' verbatim responses. Some have been modified minimally for presentation purposes; however, such modifications do not change the meaning of the passages. Lengthy quotations are included to provide a context for participants' responses and to illustrate that these are not the product of selective interpretation by the researchers. We asked participants about their use of writing groups and/or writing partners. All had at least one of these collaborations. In the following quotations we will make a distinction between writing partners and writing groups in cases where this was apparent in the interviews. The second question we examined concerned participants' experiences with a mentor. We note that most of the poets expanded this question to include relationships with editors.

3.1 Objective Evaluations of Creative Outputs

The most coherent theme observed across the interviews concerned the role of collaboration in the pursuit of "objectivity" in relation to poetic works. The function of writing groups and editors in providing objective criticism, new perspectives and feedback on weaknesses in poems was reiterated by each participant, as was the overwhelmingly positive view of this function. Participants typically sought feedback in three situations. First, they were a member of a group of several individuals who met on a regular basis to exchange feedback on a co-operative basis. Second, they would have a colleague or friend who would perform the same function as the aformentiond group. Third, they had a mentor or an editor who would offer constructive criticism.

The poets mentioned that an "outsider" – acting as a kind of objective observer – is able to see what the poet cannot. For example, one participant said: "you hand it over to an editor and because they are not you and they haven't worked from the inside of the manuscript and they're looking at it from the outside as a stranger to it - they can see things that you wouldn't have seen originally" (Participant 1). The objective observer's perspective is then shared with the poet: "It helps you look at your own work again. It helped me reconsider so many times lines or things that just weren't working. When you write a poem you tend to kind of get so you can't see…the poem properly. Then someone from outside comes in and says 'that line doesn't work and that line doesn't work'"(Participant 4). There were mixed feelings about being given explicit suggestions for changes. While Participant 3 spoke of accepting and rejecting offered suggestions Participant 5 did not want to

receive explicit suggestions and preferred weaknesses to only be identified: "The feedback is kind of like flagging up the problematic areas - something doesn't sit right. There is a bit of respect [in the group] for not suggesting how to do something; it's just flagging up things that are the problem" (Participant 5).

After the feedback process, it is clear that the poem can be improved. But there is another outcome for poets: "They kept asking me questions about it that I wasn't asking myself, so that was quite a good thing. It can make you uncomfortable, but then…it makes the artistic product much stronger somehow because you are more convinced of why you've done what you've done. Because I don't think you always know in the midst of it" (Participant 3). The critique provides a catalyst for self-reflection in relation to the poem and the poetic process. This self-reflection is also gained through writing with partners. One poet described co-writing a project with two other poets as follows: "[It was] fascinating to work so closely with two writers and two writers that write so differently. Their output was so different and how they reached that output was so different. Not only did I see how two writers wrote and what they wrote but I also saw how I wrote and what I wrote in a whole new light in comparison" (Participant 5). Although their reaction to the process was positive it was not without costs: "[It] was also incredibly frustrating. It took an inordinate amount of time to write anything, to decide on the plots of everything, that everyone felt satisfied…and then how we would take it forward and who would write what bits and then we edited those bits. [It] all just took far longer than if you did them by yourself" (Participant 5).

Warr and O'Neill (2005) discuss design as a social process and note the vast literature demonstrating how groups are less creative than individuals. It appears that poets seem to side-step most of the process losses affecting idea generation that arise from collaboration by writing alone and then taking advantage of group settings for subsequent critique.

3.2 Editors and Mentors

A second dominant theme in our data (which overlaps with the previous theme) concerned the idea that mentors or editors are helpful individuals who can act as expert, impartial judges of poetic works and direct the poet's creative energies effectively (although direction more often comes from mentors rather than editors). The mentor/editor also has a personal perspective that they bring to the relationship based on their general experience of the field. One of the poets indicated that they pursued graduate level training as a way to gain access to these highly skilled individuals:

"I was thinking, 'the way to get better is to be near people who are better than you'" (Participant 3).

Part of the benefit of having editors is that they provide an unexpected evaluation of the work: "We met [and] we'd have one poem each and a reserve poem depending on how long we took. We discussed them and that was really good but we kind of petered out. I think we got sufficiently different from each other to realise that we sort of knew what we'd say to each other, so it perhaps wasn't that helpful" (Participant 3). When the unanticipated nature of the critique is lost then so is its utility. The cost associated with this type of activity is in the time spent. When participants are not longer getting something out of the interaction the costs outweigh the benefits and the activity should end. This is exactly what we see.

Most participants indicated that there came a time when the mentor/editor had taught them all they could, at which point it would become clear to both of them that the poet needed to move on: "I found that every time somebody has edited they've shown me different things that I've done that could be done better. I take the knowledge away with me to the next manuscript and I don't need them for that particular thing anymore" (Participant 1). Participant 5 indicated that working with their mentor "was tough love really" and that the relationship was difficult at first due to the direct nature of the criticism but eventually "I got to a point where I knew she couldn't help me anymore. I had gone beyond her realms of editorial ability really, which is fine - we got to a point in which I knew what I was doing, and you know, she also recognised that" (Participant 5). Finally, one poet indicated a preference for working with peers rather than senior poets: "I know a couple of older poets that I really respect, but I actually like peer mentoring. Young poets that are my age…they're the sort of people that I turn to if I need guidance…because we're all kind of the same generation…we're all battling with the same things at the same time and that's also important" (Participant 4).

Poets as a population are not as constrained in their working relationships as commercial designers and are able to work more like freelance contractors. As such they are able to dissolve or create working relationships in a flexible way, even mutually terminating relationships that cease to be creatively beneficial. One implication for design collaboration to be taken from these observations might be that design teams and design managers could profitably be rotated when creative saturation occurs.

3.3 Workshops and Writing Groups

Workshops are intense, short-term writing classes led by an experienced poet. Our participants viewed workshops as having positive and negative features. Participants thought they were a good way for new poets to learn techniques and be part of a community. In the long term, however, there were limitations: "I have used writing groups and they have been very helpful to me in my earlier years…I found that after my second book that there was a limited usefulness in the kind of group critique" (Participant 1).

Two poets stated that they continued participating in writing groups not for the writing benefits but for the social community. Writing was described as a socially isolating process and these groups provided a venue for engaging with other poets: "I actually am involved in two writers' groups at the moment, but I do it more for the community and talking about writer issues and talking about writing in general" (Participant 1) and continues in the following quote "It's all part of the sense of having colleagues and being in a community because as an individual writer it is quite a solitary activity" (Participant 5). One poet was participating in a group they did not select due to their enrolment on a degree program. What was telling about this situation was that they showed a strong preference for writing relationships they had initiated: "I'm in a creative writing workshop at the University and we critique each other's work once a week. I find it quite useful but I get more from a few friends who are my age who are poets from outside the University. I prefer working with them more on a casual one-on-one basis" (Participant 4). This poet goes on to talk about qualities they value in writing relationships, specifically trust: "I value [my friends'] opinions because they're poets and they've been published and it's a trust thing as well because…you want to be open to ideas, but you want to trust people's judgment, you want to know that they are doing it right. I feel safer in a one-on-one with someone that I know because then I trust them with my work" (Participant 4).

In certain circumstances groups are more or less beneficial for poets. Poets will stay active members of a group so long as they are getting a benefit, be it training, community or feedback, but the benefit needs to be proportionate to the cost (e.g., time), otherwise dysfunctional groups ensue that are described as: "fun, moderately productive, [and] they tend to be frustrating. Unless you can find a writing group of that everyone one is extremely committed…Writing groups are really useful at keeping you working if they're functional" (Participant 2). One poet held the following opinion: "[A] class based workshop - which can be considered a type of writing group ... you workshop each day and [have] a lot of interaction. Those are more effective, those will leap you up a level, those will bring you greater dividends than a standard meet once a month or twice a month writing group" (Participant 2). From a personal perspective this type of investment of time and energy is safer since the poet is not counting on group participation over a course of months, where individuals are more likely to show inconsistency in attendance and effort. The concentrated nature of the experience means that every day the individual observes progress being made.

3.4 Originality

A negative factor associated with writing workshops that focused not on editing previously written work, but on writing new material based on prompts or exercises provided during the session, was the lack of originality of the material produced. This negative view stems from the idea that: "I think that the best poetry…comes from something that you see that is unique. That's where the best writing comes from and I just think that when you're being told to write about something specific even if it's quite a wide thing like 'write a poem about a memory or a dream'…even something like that is coercing your individual voice into something else and pushing it away into something" (Participant 4). This idea of originality ties into issues concerning the poet's contribution of something novel and valuable to society. Anything that undermines uniqueness is a cost for poets. While workshops can be educational (a benefit) they also have serious drawbacks: "I think that it is a good idea kind of to teach people techniques about harnessing their own ideas and things and how to do that properly, but I just think that when you're sat in a room and someone says 'okay we're all going to write a poem about a kettle' and twenty people write a poem about a kettle, then that's kind of artificial in some way you're kind of forcing something through that should be organic and a little bit more spontaneous and free." (Participant 4).

4 Conclusions

Our study represents a first step in the investigation of poetic collaboration and its implications for enhancing design collaboration. Our key observations from the poetry domain are that: (1) collaboration is first and foremost a method for gaining objective critique; (2) mentoring has a natural progression that commonly produces diminishing returns and arrives at a mutually agreed end point; and (3) groups are both sources of

positive interactions (e.g., critique and community) and negative interactions (e.g., promoting loss of originality). There is little doubt that collaboration can be a powerful tool in creative domains such as poetry composition and technological design. From our present study, however, it appears that a degree of individual autonomy is vital in such domains so that individuals can choose when best to make use of collaborative input and when best to steer clear of the negative consequences of other people's ideas.

Acknowledgements

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