Co-Creating Knowledge Online: Approaches for Community Artists

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ABSTRACT

Forming peer alliances to share and build knowledge is an important aspect of community arts practice, and these co-creation processes are increasingly being mediated by the Internet. This paper offers guidance for practitioners who are interested in better utilising the Internet[2] to connect, share, and make new knowledge. It argues that new approaches are required to foster the organising activities that underpin online co-creation, building from the premise that people have become increasingly networked as individuals rather than in groups (Rainie & Wellman 2012: 6), and that these new ways of connecting enable new modes of peer-to-peer production and exchange. This position advocates that practitioners move beyond situating the Internet as a platform for dissemination and a tool for co-creating media, to embrace its knowledge collaboration potential.

Drawing on a design experiment I developed to promote online knowledge co-creation, this paper suggests three development phases – *developing connections*, *developing ideas*, and *developing agility* – to ground six methods. They are: *switching and routing*, engaging in small trades of ideas with networked individuals; *organising*, co-ordinating networked individuals and their data; *beta-release*, offering 'beta' artifacts as knowledge trades; *beta-testing*, trialing and modifying other peoples 'beta' ideas; *adapting*, responding to technological disruption; and, *reconfiguring*, embracing opportunities offered by technological disruption. These approaches position knowledge co-creation as another capability of the community artist, along with co-creating art and media.

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[2] The decision not to capitalise the word 'internet' in this paper is based on the consideration that digital networks that use the Internet protocol suite, TCP/IP, have become ubiquitous means of sending and receiving communications.

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Introduction

The current developmental phase of community arts is digital participatory culture: the social life and dynamics of Internet mediated grassroots cultural activities. This emergent paradigm is contributing to a reconfiguration of cultural norms and dynamics, as evidenced by new production processes, aesthetics, entertainment experiences, and modes of communication. Previous sociotechnical moments have affected the community arts field in significant ways but the range and depth of changes affecting global culture due to participatory communications networks have the potential to radically shift practices and policies.

The term participatory culture is now widely used to describe the ubiquity of online participation due to the proliferation of software services that promote the sharing of digital artifacts and communications. Emergent modes of sharing are combining with established organisational processes to facilitate the production and exchange of 'shareable goods' (Benkler 2004: 276). These new practices are having a significant effect on community arts as increasingly people are telling their own stories to influence the ways they are represented as part of a shared culture. One of the sharing paradigms enabling this grassroots cultural participation movement is *co-creation,* a term that is increasingly being used to describe the collaborative production of a range of digital artifacts: from video games, and fan fiction, to encyclopedias (Banks 2012: 24). This paper builds on the dominant co-creation discourse – surrounding the making of artifacts – to incorporate the making of new knowledge. It is concerned with how the community arts field hopes to facilitate knowledge exchange between those involved in socially engaged arts practices, and those working towards the broader aspiration of cultural democracy and enfranchisement.

This paper's offerings are based on a booklet I made titled, *Co-creating Knowledge Online* (Shea 2013). The publication reveals the logics of Internet technologies, and maps the shifting norms associated with social media platforms and digital commons environments to community arts contexts. Pitched at community artists, cultural development workers, and educators, the booklet responds to the idea that being a critical cultural producer in the Internet era involves more than learning software and making content, it demands an understanding of how to contribute and respond to emergent modes of participation and connection. The empirical evidence that underpins the booklet was collected during three phases of participant observation in Australia at the Sydney-based organisation CuriousWorks. Data collection occurred over a one-year period and formed part of my doctoral research. CuriousWorks is situated in the community arts field, but extends further into education, training, and professional arts activities. At the time of my study, the company employed four full time staff members: Director, Shakthi Sivanathan; Head Educator, Elias Nohra; Operations Manager, Eleanor Winkler; and, Educator/Designer, Mark Taylor.

Context

Creative collaborative processes have been at the core of Australian community arts practice since grassroots arts interventions were considered 'communalist therapy' circa 1960 (Hecks 1985: 553). Digital creative production however, was until quite recently considered 'innovative' community arts practice (Community Partnerships Opinion Piece 2011: 1). Perceptions within the field are now more likely to involve the idea that digital technology such as mobile internet and social media are transforming practices in a way that is having a positive affect on community arts practice (Eltham 2012: 1). This emergent enthusiasm sees practitioners developing digital literacies and competencies through practical use as opposed to formal education, which reflects a broader trend associated with the internet: that of self-directed learning (Hartley 2009: 18).

The community arts organisation CuriousWorks provided a suitable context for my investigation because their publicly visible internet practices displayed interesting and experimental uses of digital networks. CuriousWorks opened up a range of research sites where practitioners were trialing networked cultural production and communication. Traces of their blogging, media sharing, and online video practices were abundant; they ran an online community that was easy to access and observe; and, their online toolkit was unique in the Australian community arts context. Based on this diversity of digital practices and when compared to other Australian community artists and organisations, CuriousWorks could be described as the most digitally distributed. Their use of a variety of different open source and proprietary software platforms was also intriguing, and set them apart from other visibly networked community artists and organisations. CuriousWorks established a critical point of difference across their processes, which exemplified a new and emergent digital practice not previously captured and which formed the foundation for this paper.

The booklet was an experiment, inspired by the Internet practices of CuriousWorks and responded to the transformations currently taking place in the Australian community arts field. A helpful lens through which to view this shift is offered by Rainie and Wellman (2012: 15) who suggest that people have become increasingly networked as individuals, rather than embedded in groups, meaning the individual becomes the dominant focus as opposed to the social group, work context, or geographical location the person might associate with. They position networked individualism as the new social operating system of the network society; taking over from longstanding operating systems that have traditionally formed around large bureaucracies and tight-knit communities (Rainie & Wellman 2012: 7). This new dominant paradigm of social operation is increasingly at the 'autonomous centre' of interactions that underpin connection through communication, and the exchange of information (Rainie & Wellman 2012: 8).

This emergent, networked individualism has given rise to new modes of peer-to-peer discovery and co-creation. Schuler's (2010) work around community networks sheds some light on this transition. He proposes the declining influence of traditional community networks might be addressed through new ways of thinking and being he describes as 'civic intelligence' (Schuler 2010: 291). This position stems from his work in the 1990s where he

documented the social change effects of community network initiatives such as Free-nets.[3] Schuler argues that just as early networks enabled grassroots community reform, so too will be the community networks of the future – so long as networked individuals have the capacity to consciously adapt, shape, and sustain their environments. The booklet experiment I designed can be thought of as an exercise in offering thinking tools to consciously adapt, shape, and sustain networked environments for the purposes of co-creating knowledge.

The Booklet: An Overview

Co-creating Knowledge Online (Shea 2013) is a thinking tool, and was designed to form part of the toolkits of artists as well as to inform policy development processes. It is the manifestation of my intention to intervene actively in the research context, and to discuss my findings openly with CuriousWorks. I used a User-Centred Design methodology so that CuriousWorks played a role in the iterative development of the booklet. Our dynamic was similar to the client/designer relationship, where I developed an initial design, then gleaned feedback from the members of staff in order to develop the next iteration. I directed my experiment to explore the following questions: how might information design help community arts practitioners understand the emergent modes of connection and participation afforded by digital networks? And, how might design artifacts encourage community artists to develop critical networked practices?

The booklet aims to develop the critical skills of community artists to help them assess and apply appropriate internet technologies while promoting critical approaches to everyday network participation. More specifically, it aims to develop practitioners' capacities to notice both subtle and significant changes in software, including the inherent limitations of open source and the controlling forces of proprietary software. Another communication objective of the booklet involved encouraging community arts practitioners to develop *agility* as well as *ability* – an idea that summarises how CuriousWorks' most effective and appropriate networked solutions combine tacit knowledge of technology with a pragmatist ethic – which leads to the iterative development of individual networked practices, or network literacies.

The booklet was distributed as a free PDF via email, listervs, social networks, and media sharing networks, and is an attempt to translate and archive my findings for future re-use by others. There was no printed version of the booklet offered. The booklet has become a reference tool for CuriousWorks to develop their own self-reflective practice, an important aspect of action research (Altrichter et al 2002: 126). It was important to me – and to CuriousWorks and to the integrity and ethical premise of my research methodology – that the booklets were free and offered under creative commons licenses for reuse. I wanted the booklets to be 'spreadable' (Jenkins, Ford & Green 2013: 3) and remixable as a hat tip to anti-capitalist agitators who have traditionally mobilised around network structures: pirates (shipping networks), Hobohemians (rail networks) and the free and open source software movement (digital networks) (Caffentzis 2010: 33). The booklet format was also a response to the community arts field's long tradition of making 'how to' style resources (*Australia Council for the Arts Annual Report* 1987-88: 20). The design of the booklet also draws on the

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[3] Free-nets were public computer systems that facilitated access to community information through text-based dialup.

work of the advocacy organisation Tactical Technology Collective (TacticalTech). TacticalTech's underlying design principle is that effective visual design shapes understanding and clarifies meaning, through the adage 'design adds seeing to reading' (Emerson 2008: 5).
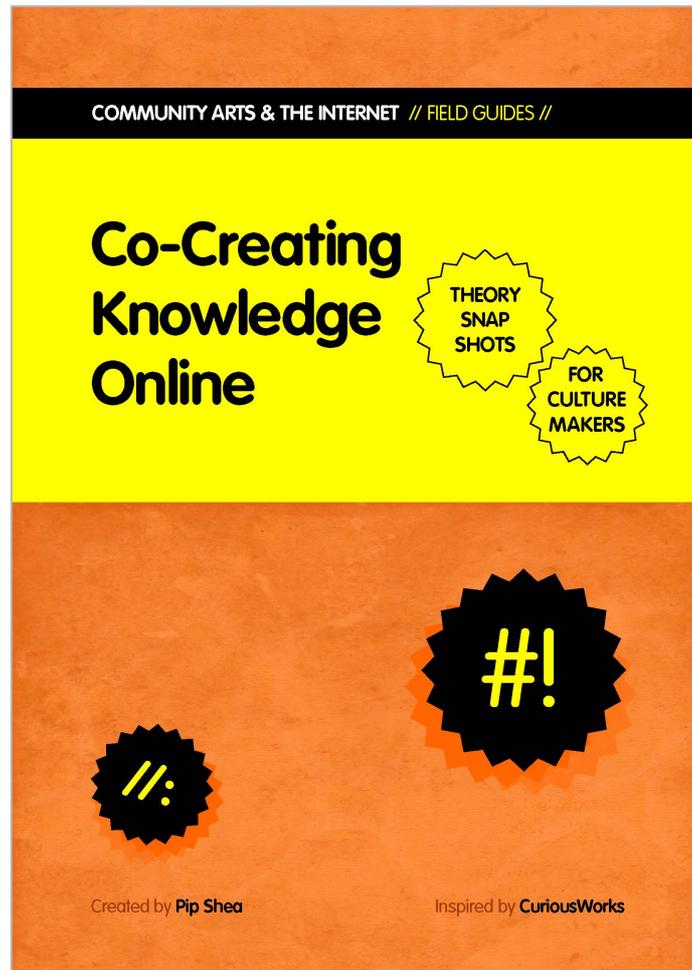
Figure 1: Co-Creating Knowledge Online front cover
(Design: Pip Shea)

The booklet combines participant observation data from the field with scholarly perspectives to investigate the dynamics and affordances of online knowledge co-creation. My objective was to expose community artists to networked methods of sharing, organising, adapting, and reconfiguring knowledge, so that ideas and resources relating to their field might develop as part of a culture of social learning. I separated the co-creation process in to 3 development phases (see Figure 2) – 'developing connections', 'developing ideas', and 'developing agility' – an attempt to reveal its varied facets and the different types of engagement each stage depends on. The two-way arrows and red lines that connect the three phases in the infographic aim to situate and reinforce how the co-creating knowledge process is dialogic, not linear or sequential.

The guide offers six methods to help practitioners pragmatically share and collaboratively build knowledge. The six methods as they appear in the booklet are:

1. *Switching and Routing*, exchanging small trades of ideas with networked individuals;
2. *Organising*, coordinating networked individuals and their data;
3. *Beta-Release*, offering 'beta' artifacts as knowledge trades;
4. *Beta-Testing*, trialing and modifying other people's beta artifacts;
5. *Adapting*, responding to technological disruption; and,
6. *Reconfiguring*, embracing opportunities offered by technological disruption.

These six methods were explored through 3 content modules:

1. An example in practice;
2. A theoretical perspective; and,
3. Questions to guide the practitioner.

My booklet experiment traces the practical consequences of the Internet practices of CuriousWorks in order to configure new models of practice that further inform theory. This approach builds on the premise that sustainable practices in community arts rely on praxis, which give rise to appropriate cultural and technological practices. The booklet captures and represents how community artists are trialing the potential afforded by new networked configurations.
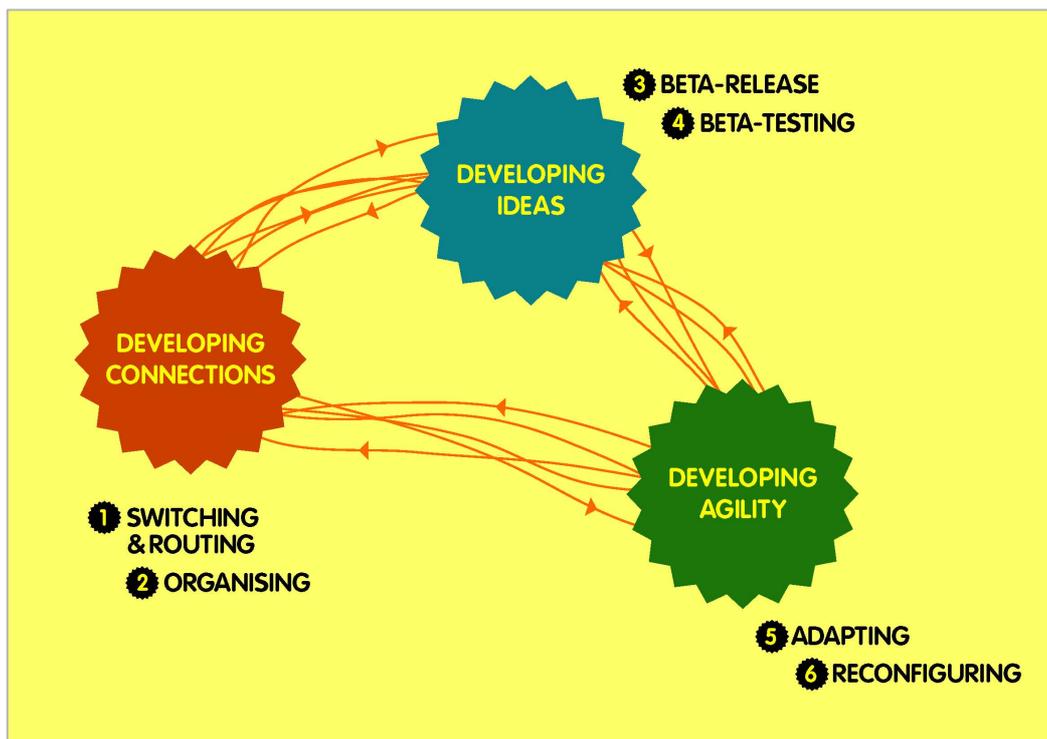

Figure 2: Infographic from Co-Creating Knowledge Online booklet
(Design: Pip Shea)

Development Phase 1: Developing Connections
The first method, '*switching and routing,* exchanging small trades of ideas with networked individuals' captures the idea that digital networks connect multitudes of people, and that this positions them well to trade knowledge with each other. The method focuses on small trades, simple acts of sharing in the hope that individuals will receive something of value in return: more ideas, new feedback, or stronger connections with other individuals. This notion of

receiving dividends from sharing via networks is well articulated in Benkler's influential text, *The Wealth of Networks* (2006: 26). 'Switching' – moving packets between devices on the same network – and 'routing' – moving packets between different networks – are metaphors I use to help conceptualise small exchanges of knowledge. I define switching as informal, peer-to-peer communications over social networks, and routing as the process of finding new routes for new systems and ideas to encourage knowledge spillovers in to new networks. In the book *Communication Power*, Castells (2009: 52) also uses the switching metaphor, but his definition aims to capture a more overarching power dynamic within the global network society.

The example I developed to introduce the method of switching and routing, was an anecdote that described a community artist's frustration with the constantly changing interface and terms and conditions of a popular social media sharing network. The practitioner turns his frustration in to an appeal for ideas about alternative media sharing platforms, via his social network on Twitter. This action initially looks like an act of switching, but the artist then adds several hashtags to his tweet, which sees his message redirected beyond his own network. This act of switching and routing, offers new information to some, and to others it poses an opportunity for dialogue, or to feed back their own experiences. The example also intends to promote the idea that the monitoring of terms and conditions of software platforms can play a role in the assessment of appropriate technology.

The questions associated with this module, begin with a simple request to distill what type of information the community artist wants to communicate. They are then encouraged to think about which networks of individuals they are trying to communicate with. Finally they are challenged to think about how they might trigger a knowledge spillover in to a new network of individuals.

The second method, '*organising,* coordinating networked individuals and their data' reveals the potential of digital communications networks to help us organise ourselves. From facilitating the arranging of our face-to-face meetings, to recontextualising our digital media via metadata, knowledge has the chance to grow and develop exponentially through new configurations of people designing new configurations of information. This method uses Brown's (2006: 10) notion of 'communities of promise' to trigger imaginaries that see networked individuals collaborating in the authorship of futures. It also references Sennett's (2012: 23) proposal that social momentum helps sustain networked organising activities, and offers Rossiter's (2006: 205) notion of 'fleshmeets' – face-to-face meetings – to maintain the momentum behind collaborations.

The example offered to ground this method of organising in practice, tells the story of a community artist who wants to draw geographical connections between grassroots arts projects. She devises several methods to encourage artists, and community arts participants, to add geotags to content they upload to the web. This way, material from any number of practitioners and participants will automatically appear in a Google map she has set up. The community artist in question, organises a fleshmeet, as she feels it is important to engage some peers in a face-to-face meeting, to further establish the project.

The questions suggested in this content module challenge practitioners to think about how they might reorganise existing data, to reveal new connections, and develop new narratives.

They are also encouraged to think carefully about the timing of fleshmeets, and also to identify the expectations of collaborators.

Development Phase 2: Developing Ideas
The third method, '*beta-release,* offering beta artifacts as knowledge trades' describes a process of online co-creation that solicits feedback from networked individuals in exchange for an untested digital resource. I situate this activity as another way to trade ideas online, albeit one that requires more of a commitment than switching and routing. The idea of offering artifacts for beta-release, draws on Gauntlett's (2011: 2) proposal that making things to share online is a craft process that situates artifacts in a social dimension, and that making is a process of connecting in and of itself. The method also describes how the beta-release establishes rules for participation, and specifies guidelines for attribution (Erkalovic et al 2010). It then proposes that artifacts or ideas offered for beta-release replace notions of best practices with beta practice, helping to legitimise emergent, iterative processes of collaborative knowledge making.

The example I established to anchor the notion of the beta-release, told the story of a community theatre practitioner who made a workshop plan publicly available on her blog. The practitioner offers her workshop plan as a free PDF, and asks for feedback in return for its use, specifying that she will acknowledge any contributions she receives. The scenario also described how the practitioner used the feedback and analytics data in her project's funding acquittal, to make the claim that her project contributed to her field of practice.

The questions following this anecdote were designed to help practitioners consider the challenges and opportunities afforded by the beta-release. They were asked to consider what value their beta idea/artifact might offer someone, and how they might garner specific feedback from this cohort. Practitioners were then encouraged to think about the ways in which these beta-testers might modify their idea/artifact, and whether the level of complication associated with such a modification processes was appropriate.

The fourth method, '*beta-testing,* trialing and modifying other peoples beta ideas' describes the process of offering suggestions for changes, or directly changing, a beta-release. I situate these people as hackers, using the term loosely to describe those who disrupt and modify the world around them to establish new and unofficial representations (Wark 2004: 232). I also describe beta-testers as scavengers who glean the web for experiments that might prove useful for their purposes, but who also respect the boundaries and conditions attached to a beta-release. This method acts as a reminder that digital networks offer an unimaginable array of resources that can be used by community artists to develop their own ideas, providing they embrace the spirit of knowledge co-creation by reusing ethically.

The example offered to trigger thoughts about beta-testing, saw a community artist implement a virtual spray painting project; technology he learned how to assemble from a YouTube tutorial. The original creator of the tutorial had requested response videos from people using his ideas, so the community artist created a video of how he had assembled, and modified the original infrared spray painting technology. The response video created by the community artist was his way of thanking the original creator, who in turn showed gratitude by posting the community artist's response video on his blog.

The questions following this anecdote situate the community artist as a beta-tester, challenging them to develop methods to glean the web for beta artifacts. They are encouraged to imagine different ways they might appropriate beta artifacts, while building in processes to feed new assemblages and processes back to those who offered the original resource.

Development Phase 3: Developing Agility
The fifth method, '*adapting,* responding to technological disruption' encourages community artists to develop the capacity to adapt to disrupted knowledge exchange systems. This method was devised to address the community sector's reliance on free social networking platforms, by encouraging practitioners to develop peripheral vision around changes to things like software interfaces, terms and conditions, and corporate take overs: sociotechnical actors Barzilai-Nahon (2008: 1503) identifies as network gatekeepers. Nurturing this type of awareness in oneself is prosed as a way for practitioners to preempt disruption to knowledge exchange workflows, and to better identify when technology is shifting from being appropriate, to inappropriate. The precarious nature of some software systems is also highlighted as a reason to keep project content portable, or agile, so it can be transposed to other platforms.

The example I offered to anchor the idea of adapting saw a community artist preempt the demise of a free, commercial software platform several months before the official corporate announcement. The practitioner and his coworkers had been using the service as a communications and co-creation tool, collaboratively developing grant applications, acquittals, and workshop plans. After hearing the service had been bought by a larger technology company, he correctly assumed that programming resources would be redirected. So his company migrated their content to another platform then stopped using the service all together. The practitioner's foresight enabled the company to implement change management processes before many other users of the soon to be defunct service.

The questions attached to the notion of adapting, aimed to prepare community arts practitioners for the inevitability and implications of sociotechnical disruption. They were asked to imagine how their knowledge co-creation and exchange systems might be affected by a corporate owner; they were encouraged to assess the appropriateness of their tools after changes occurred due to sociotechnical disruption; and, they were questioned as to how they might keep their data agile.

The sixth method, '*reconfiguring,* embracing opportunities offered by technological disruption' offers Stark's (2009: 4) view that perplexing situations provoke innovative inquiries, as a productive outlook on technological disruption. The method encourages community artists to harness the reconfiguration opportunities afforded by technological change to re-think ideas, re-evaluate methods, re-make artifacts, and co-create knowledge. It also stresses that action is often made possible precisely because of unstable ground, and that this is a fertile environment for ongoing innovation.

The example illustrated in support of the idea of reconfiguring, is a knowledge transfer project where two community artists create a conference presentation together. After the software service they are using suffers a security breach, they look around for an alternative system. They both conclude that the disruption was a blessing, as the new service enabled them to express themselves more creatively, which aided the collaboration.

The questions I devised to help practitioners see technological disruption as an opportunity as much as a challenge focused on identifying methods of, and evaluating reconfiguration processes. They were asked to identify whether a particular disruption was an opportunity for re-thinking, and reconfiguration; how they might proceed with such a process; and, whether or not reconfiguration after disruption resulted in better methods and tools.

The Booklet: Evaluation and Impact

The intention of the booklets was not to provide a complete roadmap for critical engagement with the internet, and the data eventually revealed that they are best thought of as a bridge to begin a journey, or a prelude to additional learning initiatives. Or perhaps more broadly, a signal to highlight the current transformations taking place in the community arts sector. Unintended audiences provided an unexpected data set for the research project that revealed the booklets as having transferability. It was always my intention that the booklets were relevant to community artists in international contexts, but this strategy proved a further success by attracting audiences from academia, community management, new media curators, library workers, and people who have an interest in the ways academics try to translate their scholarly work.

A variety of people showed interest in the booklets. Some identified themselves as artists, curators, academics, community managers, and others simply identified themselves as 'curious'. This wide-ranging audience illustrates evidence of the broad appeal of the booklets, establishing that their meta-level principles have transferability across disciplines and practices. Positive responses from scholars suggest that the booklets established some credibility in academic contexts; however, the distinct lack of responses from Australian community artists to the booklets suggests they did not gain any significant traction. My feeling here is that the need for Internet praxis has not been recognised or emphasised as a pressing issue within the Australian community arts field, as opposed to concluding that my booklet was a complete failure.

The experiments also revealed that the design and application of language was an issue regarding how theoretical ideas are pitched to community artists in relation to on-the-ground practices. Some of my language tested well, while some of it created further confusion. Several people also fed back with suggestions for additional copy. These included requests for more information about copyright issues and specifics around making one's work visible, spreadable, and findable in social media networks. One person suggested there needed to be more information about how to fund projects, and another saw the need for a focus on censorship, building trust, and creating 'safe' online spaces. One respondent saw my booklet as an opportunity to discuss community software development, and described the Creative Commons license I chose for the booklets as 'restrictive', even though the license enabled non-commercial reuse and remix. Another respondent suggested that links within the PDF to interesting and inspiring real-world projects would have been good, and that building a web-based forum would give people an opportunity to share their thoughts and experiences on an ongoing basis. The same respondent also suggested broaching the issue of project goals within online community building: managing process versus outcome.

Conclusion

This paper promotes the idea that community arts practitioners may benefit from developing new approaches to using the Internet for co-creating knowledge, in the hope that new cultures of learning and sharing develop. It reveals Internet affordances, situating knowledge co-creation as a community arts practice alongside the co-creation of media using online technologies. The six methods offered encourage community artists to establish new peer alliances based on their emerging status as networked individuals. Community artists may tune their online knowledge co-creation activities through developing new ways of connecting, new modes of developing ideas, and new methods for designing artifacts. Through trading knowledge and organising networks of individuals to establish rules for participation, collaboration can traverse new ground through beta-releases and beta-testing. Co-creation processes can also undergo incremental development if new agile approaches are configured as a result of technological disruption. These networks of cooperating peers may also route new knowledge beyond their own networks of peers to re-cast ideas into new contexts.

The booklet experiment this paper was based on, gained support from a variety of different practices, disciplines, and contexts which demonstrated a need for this type of resource; however, the lack of engagement from the Australian field revealed that the philosophy of software and networks is not on the radar of many community artists. Responses from those who engaged with the booklet, combined with the lack of responses from community arts practitioners and policy makers, also contributed to the analytical position that the booklets should be positioned as learning scaffolding: a prelude to further professional development activities.

The research findings offered by this paper indicate that there is room to develop more experimental interventions, workshop models, and communication artifacts, based on the guidelines I have established, and the roadblocks I faced. Developing more nuanced understandings of networked sharing paradigms, and networked identity, will also prove crucial for the community arts field in the future. Whether the context is the internal communication infrastructure of a small organisation, or the co-ordination of information sharing regarding appropriate Internet practices, understanding logics and developing norms for sharing will be key. An opportunity exists for contemporary community arts to become a uniquely collaborative and co-creative sector, but this as yet has not been properly recognised and prioritised.

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