Creative Industries: Teacher perceptions of higher education study and job futures in regional and remote Australia

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Abstract
This article focuses on New South Wales (NSW) regional secondary teachers' perceptions of Creative Industries as a higher education vocation pathway for students. The Creative Industries Roadshow sought to help students and teachers re-imagine regional and remote career opportunities and study pathways into Creative Industries higher education. Creative Industries, a significant curriculum reform in Higher Education in 2011, shifted the focus from traditional fine art and design curriculum to creative practice as enterprise and the role of creatives in building the economy (Australian Government, 2011). The article draws on the empirical evidence gathered during the implementation of the *Creative Industries Careers: Re-imagining Regional and Remote Students' Opportunities* roadshow for secondary students (Grushka, et al, 2018b). The Creative Industries Roadshow was funded by the Australian Department of Education, Higher Education Participation Partnerships Program (HEPPP). It was instituted in order to encourage students to consider Creative Industries university study pathways and the value of a creative digital technology skill to being work ready. This qualitative study reports on secondary school teachers' attitudes to the increasing characterisation of creatives as entrepreneurs and the need to provide all students with appropriate soft skills. It draws on a teacher survey and teacher video interviews supported by the fieldnotes of the researchers. It identifies the challenges facing a regional university trying to maintain fine arts skills within a Creative Industries program and how secondary visual arts educators and regional communities identify with the elevation of the role of Creative Industries skills to meet future workforce needs.

Keywords: Creative industries, curriculum, teacher perceptions, visual education, aesthetic digital literacies, work futures, higher education

Preamble
This article was written prior to COVID-19 and the significant shift to mobile technologies in professional communication and online teaching. In addition, 2020 saw the Australian Government propose a change in the cost of higher education courses for future higher education students according to priority vocational areas such as education and nursing. Creative Arts and its technological communicative skills assets was not identified as a priority employment area and subsequently the Creative Industries degree reported on in this article will not be offered in 2021. These changes are occurring at a time when there is growing awareness of the impact of arts digital technology in connecting communities, communicating and promoting online media, and their capacity to help drive the national economy.

Introduction

The emergence of the Creative Industries represented a significant curriculum reform in Higher Education in Australia following the release of *Creative Industries, a Strategy for 21st Century Australia* (Australian Government, 2011). It identified three important themes to advance the sector: leveraging national foundations by enabling innovation, exploiting infrastructure, investing in human capital and harnessing research; optimising the commercial capacity of the arts through improved business development, pursuing trade and investment and identifying markets and meeting consumer demand; and growing creative content and services through driving creative innovation, promoting intellectual property rights, exploring flexible business models, and advocating for collaborative networks and spaces. While universities responded by designing Creative Industries degrees, there were concerns about maintaining Arts scholarship (Cunningham, 2013; Margey, 2011). The Creative Industries curriculum reform and program success in Higher Education relies on secondary school teachers and career advisors (henceforth teachers) to promote this study pathway. These teachers are charged with remaining up to date with creative design digital study pathways for their students and direct them accordingly to creative higher education study options. While researchers argue that Creative Industries skills for the creative entrepreneur or 'artpreneurs' should be an important part of general education's contribution to work preparation, at this point in time communities struggle to understand the policy and curriculum shifts that have already occurred (Deresiewicz, 2015; Harvey, 2007; Zimmerman, 2009).

This article explores how regional secondary school teachers in the Australian state of New South Wales understand Arts entrepreneurship (artpreneurship) and the role of aesthetic digital literacies in future work options. In addition, it investigates the place of Creative Industries studies in Higher Education and their contribution to regional prosperity. The following questions provide a framework for this investigation: Do creative entrepreneurs (artpreneneurs) have employment opportunities in their communities? Could the Creative Industries Roadshow, an Australian Government Department of Education Skills and Employment initiative with a focus on digital creativity, impact on the attitude of regional teachers and students regarding careers in the creative sector?

The HEPPP Project: Creative Industries Roadshow

The Higher Education Participation and Partnerships Program (HEPPP), is a federal government initiative intended to attract students to study at university. The *Creative Industries Careers: Re-imagining Regional and Remote Students' opportunities*, better known as the Creative Industries Roadshow, was funded by the Australian Government Department of Education, Skills and Employment. The HEPPP project aimed to attract students from regional communities in New South Wales (NSW) by developing a strong narrative about career possibilities within the Creative

Industries sector. The Creative Industries Roadshow travelled across rural NSW, visiting eight regional areas and involving 40 schools and more than 600 staff and students. It was relatively small in scale and targeted regional and remote schools and their communities. Nevertheless, the reality of future work and the need for soft skills to augment any technology, industry or discipline focus ensured that the message it delivered has broad relevance.

Figure 1: Creative Industries Roadshow Team at a Hub Location X

The backdrop to this regional focus was the decline in farming, mining and manufacturing industries and continued low rates of youth employment in regional areas. It offered a response to the accepted Fordist notions that we train for a job for life (Schwarzkopf, 2013) in rural mining and farming communities and responds to the government imperative to expand regional employment opportunities outside of traditional career pathways. The Creative Industries Roadshow project was funded on the basis that regional areas in NSW, like regional areas elsewhere in Australia, would benefit from learning about the role of digital cultural enterprise through technology futures (Australian Government, 2018).The Creative Industries Roadshow established hub school centres and invited surrounding schools and students to attend. Travel is a significant barrier for any regional project so having a hub school in each region helped to overcome the tyranny of distance for remote schools. Each hub facilitated workshops, talks and displays with students and a teacher from each surrounding school (n = 4-6) joining the hub school's students and teachers. Hub schools had up to 40-50 selected students and 5 teachers. Up to four academic staff and 15 creative arts tertiary student mentors toured each of the hub schools (Figure 1). The objectives of the Creative Industries Roadshow was to explain what the Creative Industries are to teachers and to support students to explore new aesthetic digital skills to help them identify potential career pathways through university study.

Creative Industries Roadshow Career Advisors and Teachers Professional Development

The slogan for the Creative Industries Roadshow was *See What You Can Be* (Figure 2). It aimed to deliver positive stories from current and past students about emerging Creative Industries career pathways. It took young tertiary student artpreneurs out to regional schools as mentors to talk about their own study pathways and employment opportunities.

The project also created *See What You Can Be* videos of Creative Industries professionals working in their own entrepreneurial practices across industry sectors and allowed access to them via YouTube: <https://www.youtube.com/watch?v=zDjkhP4z9IE> and the following project website: https://roadshow.soci.org.au/

The videos were shown to the student cohorts in each hub school and were accompanied by teacher information sessions on emerging employment trends and career opportunities. The teacher information sessions provided an overview of the key foci of the Creative Industries research project, case study examples of economic trends toward Creative Industries economies, new approaches to creative digital technologies in careers futures, understanding of how the *See what you can be* YouTube series could be used in the career studies classroom, and a range of ways the videos could provide information to parents and school students about creative career options and degree programs offered by schools of Creative Industries.

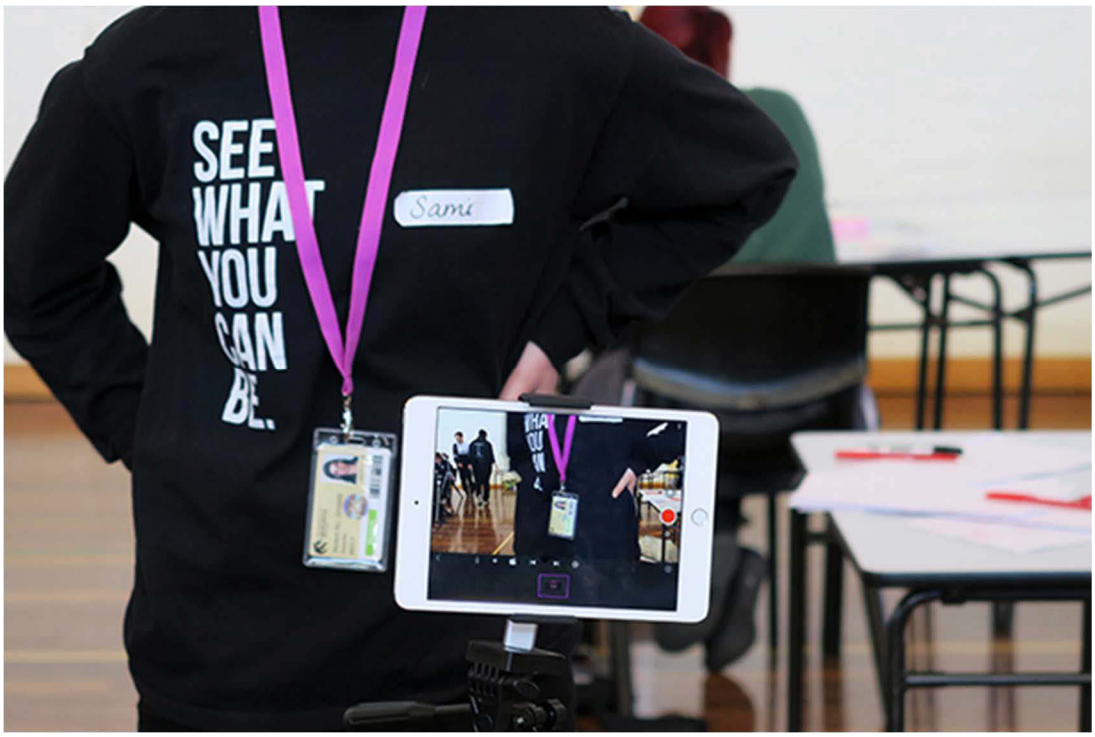


Figure 2: *See What You Can Be* Creative Industries Roadshow

Undergraduate and graduate Creative Industries mentors who delivered workshops in each school were selected from across the major study pathways of film, animation, graphic design, natural history illustration, and fine art. They shared their learning journeys formally through: i) talking about their school – university learning journeys and/or ii) informally as they worked as learning facilitators in the Creative Industries Roadshow technology workshops.

The presenters also modelled how mobile technologies are increasingly opening up remote work opportunities and how new emerging aesthetic digital and mobile career options are taught in the Creative Industries at the university level. It was also an opportunity to dispel for many teachers and, by default, their students and their parents, some strongly held beliefs about the future of the Creative Industries and employment in a regional area. The example of micro businesses or small to medium sized enterprises that focus on local markets (Creative Industries Innovation Centre, 2013, p .13) were highlighted as they are capable of making a significant contribution to the Australian economy (McIntyre, Balnaves, Kerrigan, William & King, 2015).

The student workshops

The Creative Industries Roadshow *See What You Could Be* focus was to engage teachers and students through hands on learning experiences in creative digital practices made possible through mobile technologies. The Creative Industries Roadshow did not rely on slower school networked computers but used mobile technologies when running sessions in animation, video, and virtual reality. The workshops demonstrated the significant advantage and speed of mobile technologies in production and editing. Each day the technology made it possible for full student upload outputs to be available for the school community.

The Creative Industries Roadshow two hour workshops included a Virtual reality experience workshop, an Animation workshop and a Video Production workshop.

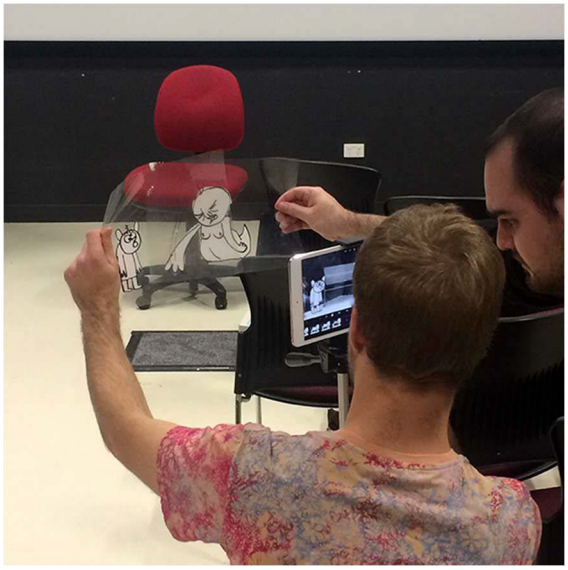
Workshop 1: Virtual Reality Experience Workshop

In the VR experience workshop (Figure 3), students engaged with VR headsets and programs that crossed digital narrative areas from science (sitting with dinosaurs), gaming (going on a virtual fun ride) and history (being part of an historical enactment). On completion of the experiences, the students workshopped VR ideas and presented their own recorded ‘piece to camera’ pitch on the applications of VR in the future marketplace.

Figure 3: The VR Experience, opening new ways of thinking about immersive communication

Workshop 2: Animation workshop

The animation workshop was based on Aug(de)mented Reality YouTube videos <https://www.youtube.com/watch?v=gpum4nK2wOM This animation technique drew on traditional animation cells drawn by the students on acetate sheets and the use of iPads or iPhones. In small groups, students created storyboards, drew their scenes, created their stop motion video and then edited the animations on iPads and added sound (Figure 4 and 5).



Figures 4 and 5: Animation activities using mobile technologies, mentors and students at work

Workshop 3: Video production

Student teams created a video storyboard with the narrative theme of an 'Awkward Moment'. Students then performed, shot and edited the video using iPads (Figure 6).

Figure 6: Filming using digital and mobile technologies

The student workshops demonstrated the potential of these mobile technologies and provided each school with an insight into the significant role participation in the creative and digital Arts can play in offering career pathways in the creative arts. Finally, these immersive workshops demonstrated the accessibility to new technology applications and how digital creative technologies are a key component of new global economies

Creative industries and the innovation and digital education landscape

The Creative Industries emergence in Australia followed the global trend towards acknowledging that innovation drives the economy through socio-technical change (Carayannis, Sindakis & Walter, 2015). The Creative Industries represent the increasingly blurred distinctions between the fields of visual arts, design, performing arts, film, media and communication. Contemporary visual artists increasingly utilise interactive and moving images, create digital media site-specific works and are often members of sophisticated production teams with artists and their cultural production merging into the entrepreneurial frame. Within this landscape, a new generation of artists are emerging as creative entrepreneurs (Hausmann & Heinze, 2016), creatives (Deresiewicz, 2015) or artpreneurs (http://artpreneur.org/). Artpreneurs, it is argued, create innovations in the face of competition and thereby generate economic growth (Harvey, 2007; Schumpeter, 2003).

The discourse of creative entrepreneurship is consistent with neoliberalist policy which argues that cultural industries benefit from business (Oakley, 2009). Education is also seen as the pathway to the maximisation of entrepreurial freedoms as it opens to market forces (Harvey, 2007). The new Creative Industries graduate would have the dispositional skills to embrace risk and have a tolerance for change, the capacity to network, collaborate, problem-solve and innovate beyond its grass roots cultural industries. Creative Industries knowledge would embed the principles of market growth through design thinking for new products, systems and processes.

Meyrick (2015) and Meyrick and Barnett (2018) argue that creative digital entrepreneurship discourses supporting economic growth through cultural generation are not central to education generally. Creative Industries and visual art education curriculum areas are not seen as a priority in the contemporary secondary school curriculum, yet thinking in and through image production has entered most subject areas (Hammer et al, 2015; Tversky, 2011). Visual communication, visual digital narrative work and creative digital arts skills in secondary school education for career futures is not well understood or articulated by teachers.

The backdrop to this research sees many students already immersed in a contemporary social media – creative space. In this space, students regularly blog online, post on Facebook and Instagram, and produce their own YouTube and TikTok content. Students have been developing their creative digital skill sets informally outside of the classroom for some time. They are now active producers of music videos and visual content and they attract audiences and followers, and display artpreneurial qualities. Even with such a backdrop of informal online learning, recent research into the aspirations of students in NSW indicates that student aspirations for creative job futures decrease significantly in high school as a consequence of a range of community and educational factors (Gore, et al, 2015, 2018). This disconnect between aspirations to pursue Creative Industries careers may in some ways be attributed to the failure of schools to recognise the potential contribution of digital creative arts. The Creative Industries Roadshow sought to bring the world of digital creativity into the formal learning setting and help students clarify how their arts creativity can be captured in a range of subject areas to build their transmedia and creativity skill sets (Scolari et al, 2018). It also sought to help students identify how informal and formal creative digital skills are marketable across the current workforce and increase their interest in university Creative Industries study options.

Digital Creativity and the Curriculum

As students increasingly engage in the transmedia narrative and aesthetic literacy space (Scolari et al, 2018), there appears to be a disconnect between formal digital technology centred curriculum and the Creative Arts as Creative Industries study pathways in schools. Some of the difficulty could be attributed to ideology, policy, curriculum renewal strategies and creative language shifts occurring in the

Australian curriculum. These shifts, which are occurring both nationally and internationally, have "dismantle[d]" past constructs of Art Education (Kalin, 2018, p. 125). Art education, like all curriculum, is now dominated by more generic constructs of creative, productive learning such as the Framework for 21st Century Learning <http://www.p21.org/our-work/p21-framework>, with these constructs also associated with the artpreneur (Cunningham, 2018; Potts, & Cunningham, 2015). These frameworks identify productive pedagogies, design, digital technologies and visual media as core skills for all curricula to drive the innovation agenda (Berk, 2016, Grushka et al, 2019). Creativity is now positioned as a generic problem-solving 21st century skill or general capability taken up in most curricula. Creativity and the Arts have now been discursively re-positioned or disconnected with certain work practices valued more than others (Gormley, 2020).

The Arts education community essentially identified this genericising trend in their response to the *Australian Curriculum*. They argued strongly to keep the traditional disciplines of visual art, dance, drama and music and added media arts (O'Toole, 2018) in order to shore up a space for design and digital cultural production disciplines in the Arts. This space would ensure cultural production areas including film, animation, web design and in new media fields like gaming, user experience and service design, where narrative, creative writing, graphic design, and illustration are core skills would remain with the Arts. The *Australian Curriculum: The Arts* mirror major pathways in higher education Creative Industries programs with fine art and its traditional material practices now considered just one of many pathways to creative careers.

Simultaneously other political, educational and industry forces were distancing Arts study pathways from career options. Firstly, the Australian education system invested in technological infrastructure, digital resources and support for teachers' practice in schools through the Digital Education Revolution (DER) in 2013 to address 21st century occupations and digital futures. Educational policy saw Digital Technology curriculum become a core focus and a mandatory curriculum inclusion. It was to be driven by the rhetoric of design thinking as the genericised problem-solving pedagogy. The emergence of Information Technologies (IT) across digital media, design pedagogies and new media options in multiple curriculum, have also added to the transdisciplinary debate where confusion surrounds discipline and career boundaries. Within the neoliberal discourse and policy directions both industry and education foreground 'design thinking' and problem-solving as the panacea for creative thinking (Gormley, 2020). To meet the economic goals of the nation the strong association to innovation and technology (problem-solving for economic goals) sees the sciences foregrounded. Currently political educational discourse and curriculum drivers feature the disciplines of Science, Technology, Engineering and Maths (STEM) (Australian Government, 2017) and they are promoted

across education sectors. STEAM (Science, Technology Engineering Arts and Mathematics) emerged in an attempt to re-establish a place for Art in the transdisciplinary debate (Hendriksen, 2017). These shifts add to the confusion for teachers about which subjects best support secondary students seeking career subject choice guidance as many know little about CI as a transdisciplinary field of study.

The Creative Industries in Higher Education

The Creative Industries involve the generation of creative intellectual property with commercial potential and includes music, narrative fiction, film, television and radio, journalism and commentary, advertising and marketing, software development and interactive content, writing, publishing and print media, and architecture, design and visual and performing arts. In addition, it has expanded its definition to include other discipline areas such as Science, Technology, Engineering and Mathematics (STEM) by arguing that contemporary digital communication transcends subject boundaries and harnesses soft power skills. These skills have been identified as a national strategic initiative useful to Australia's education institutions, and contributes to economic strength, lifestyle, culture and national identity (Dobell, 2018). The soft power skill or ability to influence the behaviour and thinking of others through the power of attraction, narrative and communication lies within the Arts and has been traditionally developed in creative education. Artpreneurs understand the significance of images for cultural, symbolic, critical and communicative significance. The power of images builds knowledge, cultural exchange, affects meaning, entertains and seduces.

Artpreneurs such as visual artists, designers and media artists employ soft skills in their communication strategies and are now classified as the "new cultural intermediaries" (Maguire & Matthews, 2012). Therefore, creativity and Creative Industries skills need to be seen as contributors to the new emerging workforce (Zimmerman, 2009). The significance, therefore, of a higher education in the Creative Industries sector is recognition that students' lifeworlds are globally connected and there is an increase in soft power skill sets for all graduates. Artpreneurs' digital communicative and imaginative repertoire builds from experiencing studio pedagogies located in the Arts (Grushka et al, 2019). As the lines between subjects in the creative fields are increasingly blurred, a Creative Industries education will build multiple skill sets for young creatives, in roles such as web designer to visual artist, VR designer or narrative gaming expert. In addition, the cutting-edge use of digital technologies produces networked performances, cultural experiences and informs new future communication trends such as virtual reality. Universities across Australia have embraced the Creative Industries curriculum in pursuit of developing a new generation of artpreneurs able to stimulate cultural change (Raunig, Ray & Wuggenif, 2011). *The Australian Curriculum: The Arts* is now presented as a vocational pathway to a degree in the Creative Industries in response to shifting cultural and digital futures.

Inquiry into the perceptions of teachers about the creative industries

Communities collectively construct career aspirational futures for students. The focus of the Creative Industries Roadshow was to build interest, from both school staff and students to pursue career futures in this area by providing information about study pathways at university. The Creative Industries Roadshow was an approved research study that required ethical approval from both the University and the NSW Department of Education. The inquiry was to identify some of the underlying narrative barriers that might be behind the drop in creative career aspirational goals of young students between the ages of 14-17 years. This research study used an interpretive narrative lens to interrogate the intersection between the data sets and to present the complexities of beliefs and values that lie behind the current high school study pathways strategies and students aspirational futures to undertake study in the Creative Industries. The discussion of the findings is presented below as narrative insights.

The inquiry sought to discover what kinds of career options/pathways had been presented to the students during their schooling by teachers. It also explored whether the events of the Creative Industries Roadshow impacted on how teachers would support students with an arts learning orientation through their choice of subjects and the advice they were providing. A question underpinning this inquiry was: Could the teachers see how the Creative Industries could provide a career option for students wishing to live and work in rural areas?

The following section reports specifically on the qualitative inquiry data collected throughout the Creative Industries Roadshow events. It considered the existing knowledge and understandings of the teachers about the Creative Industries before the Creative Industries Roadshow and the subsequent impact and effect on their perceptions of the value of studying creative arts subjects at school after the event. The researchers were interested to see if, or to what extent, teachers would shift the narratives they tell students after they had had engaged with the professional development opportunities afforded for them throughout the Creative Industries Roadshow?

The data was gathered from: a pre reflective and post short online staff survey (n=34); completed after viewing the videos *See What You Can Be*: *Creative Industries Pathways*; video interviews with key teachers and from the researchers' informal field observations and talks with school staff and students. The informal feedback provided additional insights and was gathered by the researchers who observed the school staff interacting with the workshops as observers or participants and with the mentors who described their own learning pathways.

What career advisors and teachers know about the Creative Industries and future jobs: narrative insights

The following section integrates the inquiry questions and the responses of the teachers before and after viewing the videos, website and participation in

discussions as revealed through the online survey. The teachers were initially asked 'What kinds of career options/pathways have been presented to the students during their schooling' and again after the viewing of the *See What You Can Be* series of videos. (Table 1 and Table 2).

Table 1: Responses from teachers when asked which area(s) they would most likely have presented to their students as possible career pathways before watching the *See What You Can Be* series.

Answer choices	Responses	
	Percentage (%)	Number
Media and advertising	69.70	23
Farming	45.45	15
Trade e.g. electrician, plumber, carpenter	60.61	20
Retail	39.39	13
Public service e.g. education, emergency services, social services	57.58	19
Medicine or health care	48.48	16
Mining	42.42	14
Business, Finance and Law	42.42	14
Science, Environmental Sciences	36.36	12
Engineering	57.58	19
Design	57.58	19
Architecture and Building Construction	48.48	16
Other (please specify)	27.27	9
Total respondents: 33		

Table 2: Responses from teachers when asked which of the following Creative Industries careers they would recommend as viable career options for their students after watching the *See What You Can Be* series.

Answer choices	Responses	
	Percentage (%)	Number
Film-making	96.97	32
Animation	100	33
Photo-media	84.85	28
Vehicle design	60.61	20
Arts administration	57.58	19
Gaming	78.79	26
Dance	48.48	16
Exhibition management	54.55	18
Interior design	81.82	27
Graphic design	100	33
Illustration	81.82	27
Television Broadcasting	69.70	23
Architecture	75.76	25
Performing Arts	69.70	23
Systems design	57.58	19
Information technologies	81.82	27
Digital media	87.88	29
Urban development	54.55	18
Publishing	60.61	20
Total respondents: 33		

The survey revealed that prior to the Creative Industries Roadshow screenings and information-discussion sessions, teachers held to their traditional advice strategies that encouraged creative students away from new creative careers. If a student was keen, then advice and information was provided for visual art teaching, design/ visual communication or architecture and building and construction. Overwhelmingly teachers believed that it was more beneficial to direct students to pursue careers in the following areas: engineering; mining; business finance; medicine and health care; environment and science; or retail and service industries. All of these are traditional employment sectors present in most regional cities and towns.

Synthesising the teacher conversations and the survey responses revealed that teachers had very practical concerns about study opportunities and the limitations for rural and remote students. They had generally directed students to the local Technical and Further Education (TAFE) study options rather than offering the option to leave the town and study in metropolitan or regional cities where higher education Creative Industries study options exist. Distance, personal and financial burdens were still a significant barrier to study away from home. This was compounded by a resistance to embark on new more risky career options such as Creative Industries. The greatest obstacle to encouraging creative digital technologies and Creative Industries study skills was a reliable broadband/internet. A teacher with school aged children spoke of having to do all their study online via mobile technologies. These technologies are not available at all schools, further widening the informal and formal schooling barrier. Few creative digital learning opportunities at schools using mobile technologies such as iPhones and/or iPads were evident. The Creative Industries Roadshow opened up a considerable gap in thinking about mobile learning or digital new media learning. Each session ended the day with a full screening of all the aesthetic narrative learning outcomes to every participant via mobile technologies. This insight prompted Principals to ask why such learning opportunities were not afforded across all classes at school.

In response to whether the events of the Creative Industries Roadshow impacted on how they would support students to re-orientate their subject choices in their schooling years in the future, the teachers were asked ‘What have you learnt about the Creative Industries from viewing the video series’? through open ended short written survey responses. Overall, teachers became more open to potential careers in the Creative Industries. For example, one commented in the teacher survey that “there are industry job opportunities that I did not even know existed, such as Virtual Reality”. Another response noted that the Creative Industries Roadshow “has also provided resources that I can adapt to career lessons to broaden students’ perceptions about the importance of creative industries in future employment”. All of the teachers were extremely positive about the videos and their accessibility online.

More generally, narratives about having a creative skill set for employment revealed that teachers understood having a digital media skill set meant there was flexibility to pursue this anywhere because of advances in technology: “That there is more than one occupation in the creative industries. The [YouTube videos] have shown me the wide range of careers and possible business ideas, the different pathways students take, and the trend towards remote self-employed businesses (Teacher survey response). A teacher video response highlighted “The need for a range of employability skills”. These comments were made by interested teaching staff who either taught digital technologies or were interested in finding out about the Creative Industries for their students.

The Creative Industries Roadshow team frequently encountered a lack of insight into how the broad base of skills developed in school arts subjects were applicable to students generally. Because of the narrow belief by some teachers concerning which students might benefit from a creative digital workshop at the Creative Industries Roadshow event the selection of students remained narrow. If students liked digital technologies or visual art, such as film or animation they were encouraged to attend. In contrast, no music students, creative writing students, software or technology design students were invited to attend. Why this occurred was not fully explained in the data but may be due to the increased emphasis on design thinking and design pedagogies now generically accessed in many subjects and the disconnect from creativity located in the Arts.

Finally, the survey sought to see if any shift in thinking had occurred in relation to regional employment opportunities. A significant number of respondents talked about employment: “Creative Industries will increasingly evolve and change in the future, well beyond the traditional Creative Industries of the past, especially around technology and content demand driven change” (Teacher survey response) were typical. But these ideas were only present in conversations after teachers had seen the workshops, videos or listened to a Creative Industries talk or after chats with the mentors.

While the Arts seed creativity and innovation skills (Dinham et al., 2007; Hetland, Winner, Veenema & Sheridan, 2007) so critical for our economic future (Goldstein, Lerner & Winner, 2017) the gap in artpreneurship vocational outcomes being presented within the Art curriculum were not strong in these rural areas. For regional and remote visual art teachers and teachers generally, beliefs about employment futures through the study of Creative Industries in higher education continues to remain low, as reported a decade ago (Oakley, 2009). The online pre- and post-survey confirmed that career advisors and teachers had gained a better understanding of the types of employment careers that high school students interested in creative careers may seek after their secondary studies. However, they were not optimistic about students’ keenness to leave their regions and study elsewhere as they still perceived TAFE was the best option for students post schooling.

The higher education Creative Industries curriculum was designed to expand study options for Arts students towards building innovation and entrepreneurial skills for future employment, yet the recent reduction of traditional Arts degrees at University has only provided additional doubt for teachers in these regional areas. Teachers in this study became aware that Fine Art degrees were being dismantled but knew very little about the Creative Industries degrees replacing them. They knew little of this new curriculum area which contained fine art discipline studies alongside digital design, entrepreneurial and business skills, user experience and interaction design, gaming and beyond. The Creative Industries research team felt that what we were experiencing was being echoed internationally. Arts Education across the globe has been marginalized in schools (Adams & Atherton, 2018; Irwin, 2018; See & Kokotaski, 2016) and Arts learning outcomes are being dismissed in favour of generic "design thinking" pedagogical outcomes with innovations linked to science and technology being written into education policies. Comments gathered after viewing the career videos and conversations with the Creative Industries Roadshow team provide additional insights from the teacher participants:

> That there is more than one occupation in the creative industries. This workshop has shown me the potential of combining creativity with more traditional career paths. (Teacher survey response)

In addition the workshop feedback from students was positive with comments such as "It's very exciting once you learn something; I was interested to learn…what is involved in university courses like creative industries and [I] identified: IT, drawing, writing, imagination, drone flying, computer, creative arts, editing, photography, videography, animation, software and coding" (student evaluation form, 2018).

The comments provide a sobering reflection on the fact that globalisation, rapid career shifts and the role of the Arts for future employment are not well understood or integrated in the more traditional NSW Visual Art curriculum. In addition there was a poor understanding of where an artpreneur skill set can be nurtured in the current curriculum. "Global education is coming faster than small communities think. Global employment availability is not widely known in smaller communities and our students need to start thinking about creating their own jobs, they need to be multi-skilled, multidisciplinary, collaborators and innovators" (teacher survey short answer response, 2018). In addition, there was a shift in the teachers' understandings that design and communication skills for job futures may also include new media areas within the Arts: "That designing experiences for people and consumers is also a creative industries. Creative Industries encompass more fields than I previously thought" was echoed by many (Teacher survey response).

The successes and challenges ahead for Arts educators

The Creative Industries Roadshow project was a successful collaboration between the university sector and the Australian Department of Education. It established strong partnerships between the university and high schools and career

advisors/teachers that joined the Creative Industries Roadshow project. The project was able to deliver impactful shifts in the perceptions of regional and remote students, parents and teachers in the schools visited; however, many schools have yet to experience the opportunities the Creative Industries Roadshow provided. The Creative Industries Roadshow videos and the YouTube *See What You Can Be* continue to be accessed, thereby helping to develop a strong narrative of future career possibilities within the creative industries sector in regional communities in NSW (Grushka, et al., 2017). The Creative Industries Roadshow has been reported as a model that could potentially be rolled out nationally to both government and independent school systems with funding support (NCSEHE, 2017).

Beyond the successful Creative Industries Roadshow concept the inquiry reveals the challenges that lie ahead for teachers who wish to promote Creative Industries higher education pathways to their students. The impact of educational reform has left a significant gap or rupture between teachers', parents' and students' understandings of artistic career aspirations and schools' capacity to provide contemporary curriculum initiatives that value visual art education, across its material and digital narrative forms. A teacher commented:

> The future potential for ways of learning, direction of career paths, creativity is in all areas, that I want to start some MOOCS ... use these resources for Stage 5 & 6 art classes. That my school needs to be aware of this. Who is going to write the syllabus for this way of learning for year 9/10 electives, PBL??? So many questions. (Teacher survey response)

With innovation now coupled to design pedagogies, measured as a product and an employability attribute prioritised in the STEM curriculum (Grushka, et al., 2018b), Creative Industries as STEAM learning is a small player. However, there were insights which arose from the participants: "This [Roadshow] has shown me the potential of combining creativity with more traditional career paths" (Teacher response, 2018). The policy rhetoric of education for prosperity through innovation was echoed in all the schools that the Creative Industries Roadshow visited <https://www.industry.gov.au/data-and-publications/australia-2030-prosperity-through-innovation> affirming the importance of the STEM curriculum. Visual Arts teachers, however, lamented subject availability narrowing the choices for Arts oriented student pathways at high school. Training the new creative in secondary school through the digital visual arts is a quiet challenge to the dominance of other digital curriculum areas. It was clear that there was a significant need for professional development for teachers about the Creative Industries and the role of creative digital pedagogies in developing soft skills for a future workforce.

Our goal in this study was to shift teachers' perceptions about how to support students for possible Creative Industry study pathways in higher education towards future employment back in their regions using mobile technologies. Simultaneously

the research demonstrated that school teachers generally fail to see the potential of creative digital pedagogies as a transdisciplinary benefit to all subject areas. A passion for technology, computing, design or creative writing also fits the Creative Industries study pathways, however the schools did not invite these students. The findings of this study echo research that has found school art educators have yet to be given the opportunity to demonstrate the significant core value of the Arts to transdisciplinary learning (Grushka et al., 2010; Grushka et al., 2018a; Kraehe, 2018; Liao, 2016; Marshall, 2014). Teachers also selected traditional visual art students, yet some of these students were not interested in digital creativity. As creative digital learning opportunities are also technologically constrained in rural areas this added an additional significant barrier to the exposure of students to digital arts learning. In addition, creativity, visual communication and associated soft skills and their significant value to employment futures was not initially evident but emerged in teacher conversations after viewing the videos. It remains to be seen whether this short and intense experience can shift teacher perceptions and beliefs about the value of a digital arts skill set for all students.

Teachers who participated in the project felt confident about presenting Creative Industries options at university to their students. The Creative Industries Roadshow began to shift students' and teachers' perceptions beyond the limited service industries (farming and mining jobs) to entrepreneurial, freelance, startups, innovation hubs or small businesses (drones in marketing and real estate for example). There was a preparedness by teachers to consider how being a filmmaker, animator, photomedia artist or digital publisher may work in rural regional NSW.

Although small in scale, the project was able to identify that schools and communities are undervaluing the potential value of the Creative Industries. Art teachers will continue to be challenged by the need to focus on vocational outcomes from their subject and to shift pre-existing perceptions held by non-Arts teachers who are key stakeholders in educational study pathways. All teachers need to rethink traditional career boundaries and envisage mobile and small business opportunities for their creative students. They also need to find ways to present visual art learning as housing the merging soft skills employment options that require aesthetic transmedia learning assets. Teachers are genuinely seeking to help students find meaningful career futures through their subject choices and learning opportunities. In remote and regional Australia, the gaze to career futures is focused on STEM subjects rather than opening up to emerging small artpreneur business opportunities. Our concern is a Creative Industries skill set, where technology, creativity and passion abound, is the missing link for school learning and no connection is being made between this skill set and future self-employment.

Conclusion

Creative Industries higher education programs were born out of government and higher education curriculum change to benefit employment futures and the

Australian economy at a time when cultural industries were seen as significant economic players in Australia's productivity. These neoliberal policy directions have, ironically, also played a part in dismantling the value of visual arts and new digital media for soft skills and communication expertise. Industry and education both currently consider the genericised problem-solving and innovation is best located in STEM areas where current policy is focused for economic growth. Building capacity for skilled employees in the economic areas contained within the Creative Industries will initially be dependent on teachers understanding what the Creative Industries field looks like and the knowledge disciplines and skills it develops being promoted by Art educators. Secondly, art teachers need to be proactive in representing the contemporary artpreneur career future for their students beyond current beliefs about the instability of a career as a solo artist. Thirdly, better articulation of the value of soft skills acquired in visual art education by visual art educators needs to be provided.

As we embarked on the Creative Industries Roadshow, we discovered that the career aspiration mindsets of students, teachers and parents were firmly focused away from learning in creative subjects. Their value in providing students with a skillset that facilitates access to permanent ongoing employment in traditional regional and rural areas remained unacknowledged. In rural NSW, like other rural areas of Australia, the traditional industries related to faming and mining are still seen as a source of employment for the next generation. The findings from the teacher survey indicated that the project had been successful in shifting perceptions about creative career study options in the Creative Industries. There was a genuine effort made to embrace ideas of artpreneurship, mobile and flexible employment and creative career opportunities such as small scale businesses responding to their communities. Most teachers recognised the impact of the globalised economy and the depth of artpreneur job opportunities opening in the creative and cultural sectors. Transdisciplinary links with visual communication and soft skills remained weak and discipline boundaries firm. Overall aspirational change for Creative Industries degrees to provide vocational opportunities to live and thrive in rural Australia by teachers is yet to be seen.

While the project may have removed some of the fault lines existing in career opportunities for creative students post their school years there persists a significant emphasis on STEM employment pathways. The growth of creative digital arts continues to play a significant role in the cultural prosperity of all with the emergence of successful small startup companies such as those profiled in the Creative Industries Roadshow. The writers would argue that Arts educators in schools and higher education settings must seize and promote the strengths of a Creative Industries curriculum for their vocational opportunities. They also acknowledge that government policy enactment, such as course funding in higher education and

curriculum discourse will continue to weaken the potential value of Creative Industries employment futures in Australia.

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