Education, Design and Practice – Understanding skills in a Complex World

• Paper / Proposal Title:
Transformative technologies: emerging pedagogical approaches can empower students to design strategies capable of driving social change

• Author(s) Name:
Donna Cleveland and Sangeeta Karmokar

• University or Company Affiliation:
Auckland University of Technology

• Abstract (300 words):
Information sharing and technological innovation have profoundly transformed daily life in the 21st century. This re-circuiting of the human experience and expectation is accelerating and expanding exponentially. Paradigm shifts are seen and encountered in many sectors such as agriculture, medicine, manufacturing and business. This societal change also provides diverse precincts of business and society with new opportunities for strategic and social translations. Educating creative technologists within and for this increasingly complex world is challenging. The university environ is in a mode of constant flux, we need to be creative and collaborative to navigate and curate experience and formats with confidence in a multiplex ecosystem.

Challenges in the field of design and education are fertile ground for new models of curriculum content and modes of delivery. However, activating new pedagogies for educating in this environment requires a systemic adoption of creative technology and its interdisciplinary nature as a transformational agency that champions personal and societal transformation. The potential of an enriched contribution to all constellations of practice and strata of society that
embraces a creative approach and its emerging methodologies is a succinct change that celebrates diversity, heralds technology, raises social awareness and demands change. In this paper, we present a sequence of case studies that focus on student research, their creative practice and outputs. These all utilise transformative technology, design methodologies and their capacity to drive social change. We present tangible examples from a studio based learning environment at Auckland University of Technology, in New Zealand, where students were encouraged to consider contemporary real world problems where applied transformative technological design could be the solution. The paper highlights the dynamic role of higher education and describes some alternative pedagogical architectures that encourage collaborative project-based learning, anchored in thinking through making and learning through doing.

• Author(s) Biography (200 words each):

Ph.D. Donna Cleveland

Ph.D. Donna Cleveland is a lecturer and researcher within Colab, Creative Technologies Research Centre at the Auckland University of Technology in New Zealand. Her research and creative practice draw on innovative design led strategies, entrepreneurship, designing for systems change and interdisciplinary collaboration. Her areas of expertise include smart textiles application and fabrication, sustainable fashion and textiles design, social engagement through sustainable design education. Her passion lies in the fusion of traditional applications with emerging technologies, such as e-textiles to redefine the future landscape of design.

Ph.D. Sangeeta Karmokar

Ph.D. Sangeeta Karmokar is a Senior Lecturer at Faculty of Creative Technologies. She is interested in fostering creative and critical thinking and providing design-thinking opportunities in building innovative and digital business models. Her practice-based research interest lies at the intersection of the entrepreneurship and design disciplines, with a special interest in social and women entrepreneurship. Her cross-disciplinary teaching and research provides opportunities and rich experience to work in broader trans-disciplinary environments. Sangeeta has regularly contributed to various local community activities and community based projects.