

Teaching Grant Proposal for Teaching Excellence Awardee

Dr. Yanto Chandra (蔡振榮), 1 July 2016 – 30 Jun 2018.

A. Title of Project Proposal

Manga as a Learning Tool for Social Innovation and Entrepreneurship Learning

B. Project Investigator(s)

	Name	Post	Academic Unit	Institution	Email	Phone No.
Principal investigator	Dr. Yanto CHANDRA (蔡振榮)	Assistant Professor	Dept of Public Policy	City University of Hong Kong	ychandra@cityu.edu.hk	3442 2403
Co-investigator	Mr. Kaho Albert Yu	Assistant Professor	School of Creative Media	City University of Hong Kong	kaho.yu@cityu.edu.hk	3442 6554

C. Abstract

This project proposes the use of graphic novel and in particular *manga comics* as a pedagogical tool to enhance the delivery of important concepts, methods, principles, and strategies in social innovation and entrepreneurship and related issues in entrepreneurship/sustainability. Following a review of the literature on the efficacy of graphic novel approach, this proposal adopts design thinking as a methodology to produce manga comics. The main beneficiaries of this project are: arts students across several universities in Hong Kong as co-creators of the manga comics under the supervision of the PI and Co-I and students studying social innovation and entrepreneurship courses as the target audience. The project will be conducted in four phases (empathy-define-ideate, prototype, test, and finalization). It will produce the 3 manga books in English. Expert reviewers and student reviewers will be involved to provide feedback on the manga comics. Following the completion of the manga design, the manga comics will be evaluated for their efficacy against conventional learning methods. This will be the first manga comics in the social entrepreneurship/innovation field, and one of the pioneers in the broader field of entrepreneurship and sustainability. The project will make the best use of the HKD150,000 that has been awarded to the PI as a Winner of the CityU 2016 Teaching Excellence Award to enhance the DEC-based learning and as a platform to seek larger grants.

D. Keywords and Category

- Keywords: manga, comic, social innovation, social entrepreneurship, GenerationY
-

✓	Pedagogy/Content Delivery Enhancement category
	Social Cognition/Graduate Attributes as category
	Language Enhancement category
	Technology related

E. Intended Outcomes/Impact on Student Learning

1. Improved students' **interest** and **engagement** in learning social innovation/entrepreneurship via a combination of manga and narratives.
2. Improved students' ability to **critically observing and reflecting** and **connecting** their and other's life experiences with concepts delivered via the manga.
3. Improved students' ability to **apply** the concepts learned from the manga in their studies.

F. Project Description and Methodology

Pedagogical gaps and new trends in learning

Academics often face **problems** in *engaging* students actively in a subject, *critically observing and reflecting* their experiences in relation to a subject, integrating their observations and reflections into *abstract concepts*, and actively *test the concepts* in real-life situations; or what D.A. Kolb (1976) calls "four-stage cycle to learning". These challenges become more accentuated as the so-called "Generation Y", those born between 1982 and 2003, are now making the bulk of students in the universities, including those at CityU. Based on our own teaching experiences in universities in United Kingdom, Netherlands, Australia, and Hong Kong, and coupled with a literature review of learning issues among GenY, it becomes clear that there are unique challenges in engaging and teaching the GenY. For example, GenY are known to have *short attention span* as a result of growing up in an environment where constant stimulation is the norm (Wolf, 1996), and therefore it is challenging to *reach and engage* them (Proserpio & Gioia, 2007). The "**boredom**" and "**disengagement**" *problem* further increases when a subject is perceived to *difficult* and requires *complex* or *contextualized* understanding. We need new tools and approaches beyond the conventional methods such as textbooks, lectures, case method, simulation, action learning, and service learning (Joshi et al., 2005; Jennings, 2002; Angelidis et al., 2004) to realize CityU's "**Discovery Enriched Curriculum 2.0**".

Based on our observations, there is a recent trend in using "**graphic novel**" **approach**, that combines narratives and visual graphics, in some US universities in delivering complex topics in business courses such as IT and strategic management. For example, *The Adventure of an IT Leader* (Austin et al., 2009a) is a graphic novel based on a reality-based fictional story about a newly appointed Chief Information Officer in his first year on the job in an IT department. Readers (i.e., students) learn inductively via the novel through caselike discussions and deductively via cumulative engagement of conceptualizations. It uses a literary device called *monomyth* that encourages readers to identify with the hero and leading to fuller engagement (Austin et al., 2009b). Another graphic novel called *Atlas Black: The Complete Adventure* blends the story of a character named Atlas and his entrepreneurial journey with insights from key theories from entrepreneurship, organizational behavior, psychology and strategic management (Short et al., 2011). It brings across concepts of scientific management, firm performance, rational decision making, SWOT analysis, intellectual property, hiring decisions,

division of labor, conflict handling, Maslow hierarchy, leadership and decision making styles of the main character called Atlas Black and his friend David Chan (Short et al., 2013).

In essence, **storytelling** in the form of **graphic novel** has been touted as an effective medium to integrate concepts that are difficult to convey or that otherwise might not maintain the readers' interest through text alone (Eisner, 1985, 1996). The graphic novel approach resonates with the ideas inherent in the **media richness theory** that suggest that individuals will have better recall when visual elements are integrated into communications (Simpson, 2007). The graphic novel approach is not a mere fantasy since it was tested among university students in the US, which found that 1) *graphic novel approach was related to high levels of learning experiences*, and 2) *verbatim recognition was superior with graphic novel texts* when compared to traditional textbooks (Short et al., 2013).

Asia and Hong Kong in particular has a long tradition of **manga**, a genre of comic which consists of narratives with visually appealing hand-drawn images, that are highly attractive to young and mature audience. If we ask any youngsters, rarely will we find that anyone who does not read or like manga. In other words, manga is deep rooted in the culture and psyche of young people in East Asia including Hong Kong. What we notice here is an untapped opportunity to use manga comic as a learning tool to address the “attention-boredom-disengagement” problems in learning among GenY; and an opportunity to experiment with learning methods to realize the DEC 2.0 goals.

Project Objectives

Specifically, we seek to use manga to enhance **social innovation and entrepreneurship** learning experience, and **the broader entrepreneurship/sustainability related courses** which are led, designed and taught by the PI in CityU in the past 3 years (GE1218, GE1220, POL3900, and future related courses). Social innovation/entrepreneurship has been defined as *organizations that combine social/environmental welfare and commercial logic; or the pursuit of social-environmental objectives using business tools and principles*. The success of this pioneering effort could be replicated in other courses taught by the PI and other faculty members at CityU.

In this proposal, we seek to use manga comics to deliver the important concepts, methods, principles, and strategies in social innovation/entrepreneurship and related issues in entrepreneurship/sustainability. Therefore, the manga comics aim to help readers understand the concepts, methods, strategies in social innovation/entrepreneurship inductively, deductively and engagingly. Our goal is to design and publish *the first manga comics* in the social entrepreneurship/innovation field, and use it as a **pedagogical tool** to accompany existing learning materials. Our aim in this proposal is to produce the **3 manga books** in English.

We expect that the manga comic books will benefit around 500 students taking courses taught by the PI at CityU in three years after the manga is published; and we plan to continue using the manga comics much longer after that because the manga will continue to be relevant in subsequent years ahead.

The project requires a close-collaboration between the PI, as subject matter expert, and the Co-I, as visual arts and storytelling expert, who will coach between **6 to 9 arts students** (CityU, PolyU, BaptistU, ChineseU) who will execute the drawing, illustrating and storyboarding for the manga. We will hire the arts students across the four universities because they offer arts programs including comic arts. Therefore there are **two main beneficiaries** of this project: 1) the arts students, and 2) the readers of the manga notably students who are studying social innovation/entrepreneurship.

Our manga stories will take reference from *The Hero's Journey monomyth* (Campbell, 1949), which is a common template that involves *a hero embarking on an adventure, and facing a decisive crisis but wins a victory, and then comes home changed or transformed*. Classic Asian narrative structures such as the Kishōtenketsu, will also be explored in order to more effectively speak to our largely Asian audience. The manga will be divided into chapters, with several topics per each chapter, and illustrated with plots and narratives.

How will the project be conducted and managed? We adopt the **design thinking** approach (Dunne & Martin, 2006; Brown, 2008), that involves **empathy-define-ideate-prototype-test** to develop the manga as described below.

Phase 1 (Empathy, Define, Ideate: Month 1 to 6)

The PI, Co-I and between 6 and 9 arts students will conduct brainstorming sessions over the first 6 months to develop the topics in more detail, to write a script for each topic and to develop a visual aesthetic which includes the design of characters and environments of the stories, typography, layout of the pages, and the choice of paper etc. These are important steps in order to capture the manga in a holistic way that optimally presents the narratives. As mentioned above, the manga will contain *topics* pertaining to the following:

- Building readers' **awareness of the social-environmental problems** that our world is facing
- Explaining **why and how** social innovation/entrepreneurship arises (e.g., state, for-profit, non-profit sector “inefficiencies”)
- Where **opportunities** for social innovation/entrepreneurship come from (e.g., discovery, co-creation, actualization)
- What **motivate** people to become social innovator/entrepreneur (e.g., sentimental drivers, family influence, compassion)
- The **principles** in generating social innovation/entrepreneurship (e.g., bricolage, effectuation, bootstrapping, exaptation)
- **Marketing** strategies in social innovation/entrepreneurship (e.g., positioning, branding, pricing)
- **Social business model** as an engine of social enterprises (e.g., innovativeness, revenue generating mechanism, beneficiaries)
- Social impact and financial performance as key **sustainability** concepts.

A mixture of concepts, theories, principles from entrepreneurship, social innovation, non-profit sector, sustainability, technology management, cognitive science, psychology, economics, strategic management, organization science will be included in the manga.

Phase 2 (Prototype and Development: Month 3 to 12)

At this stage, a script for each topic will have been written. The PI, Co-I and the art students will have regular meeting, weekly or adhoc basis, to translate the scripts into storyboards as part of the process in co-creating and prototyping the manga. The PI's input is critical in order to ensure that the manga meets the pedagogical objectives; the Co-I will help the PI in terms of picking the “most interesting” angles, perspectives, plots and story lines. Once the storyboards are approved, the arts

students will start the drawing process. We will solicit informal feedback from target readers (i.e., 10 students) and expert reviewers (e.g., 3 academics) to offer preliminary feedback.

Phase 3 (Test: Month 12 to 14)

The PI, Co-I and the comic artist will “test” the draft manga by presenting the manga to several *expert reviewers* (i.e., two renowned academics in the social entrepreneurship/innovation, two academics from unrelated fields, two animation or visual arts experts); and to our *student reviewers* who are the *target readers* (i.e., approximately 30 CityU students from different year of intake and major. This phase is critical to gain final feedback. We believe that we can find people who are willing to be our reviewers without remuneration.

Phase 4 (Finalization: Month 14 to 18)

The PI, Co-I and the art students will use all the feedback and comments from expert reviewers and target readers to make final refinements and adjustments on the manga. This could involve a change in the choice of words used in the narratives, adding the “wow” factor, coloring, and other aesthetics issues etc. At the end of the process, we will give all reviewers a free copy of the unpublished manga.

We aim to have the manga **published by a world class (A+) publisher** and have it printed and distributed in Hong Kong and elsewhere around the world including in Amazon.com. Our alternative publishers are existing comic publishers including Flat World Knowledge (that publishes Atlas Black comic), TokyoPop, and Dark Horse Comics which are based in the United States. The manga will be used as part of the reading materials in social entrepreneurship/innovation and broader entrepreneurship/sustainability related courses.

This manga project fits well with the DEC 2.0 in many ways. It offers a fresh, entertaining yet rich and contextualized learning that can stimulate learning for the GenY students. It helps academics achieve their pedagogical objectives more effectively. The stories in the manga can be used to develop students’ “*what if*” or *counter factual thinking* (e.g., what if the hero did not decide to pursue an opportunity?; what if the hero picks A instead of B as a partner?; what if the hero uses doesn’t care about others/environment?), how to make scientific reasoning via inductive and deductive thinking using the manga narratives. The manga does not seek to give “correct answers” about the world but rather train people about the ways to reason, the skills to continuously build, test and re-test hypotheses about various phenomena.

G. Evaluation and Dissemination

The manga will be the main deliverables of this project. We will conduct two-pronged approach to evaluation: 1) **key learning objectives evaluation based on students experience with the manga**, and 2) **a direct comparison between the manga and traditional textbook**. We plan to use established learning measurement scales such as cumulative learning scale, student engagement scale, course logistics, attitude, recall scales and other measures (Kolb, 1976; Short et al., 2013).

We seek to produce **two scholarly journal articles** from this project. The first article focuses on the **creation of the manga and conceptualizing “manga” as scholarship**, using media richness theory (Simpson, 2007), as an alternative form of education in universities. The second article will focus on the **evaluation of the efficacy of the manga and a comparison of the manga versus traditional textbook**. We aim to publish them in the most reputable journals that have interest in this topic. Before submission to journals, we will submit these articles to prestigious conferences related to anime/comic and social innovation and entrepreneurship, and we hope to produce two conference proceedings. Finally, we will use the result of this project to attract larger grants in the near future.

H. Budget

Activities/events	Duration	Year 1 (Jul 2016 - Jun 2017)	Year 2 (Jul 2017 - Jun 2018)	Budget (in HK\$)
Paid student work (6-9 arts students from CityU, BaptistU, PolyU, CUHK)	18 months (Year 1 and 2)	51,000	25,000	76,000
Student helper (evaluating the effectiveness of the manga)*	6 months (Year 2)	-	10,000	10,000
Manga cover design (for 3 manga books) by a professional designer	3 months (Year 1)	20,000	-	20,000
Materials (e.g. ink, papers, pencils)	12 months (Year 1)	4000	-	4,000
Conference presentation at anime/manga conference in the US (PI & Co-I)	(Year 1 or 2)	-	40,000	40,000
TOTAL				150,000

**the evaluation may be extended beyond June 2018 depending on our success in soliciting students to participate as respondents in the evaluation. If this is likely to happen, we will apply for an extension for the evaluation purposes of the project.*

STAFFING EXPENSES (HKD106,000)

- **HKD76,000** will be allocated to pay between 6 and 9 **arts students** based in Hong Kong to produce **3 manga books** (to capture all the core content in an engaging manner). This project allows the arts students to learn the process of manga making under the supervision of the Co-I. Each (of the three) completed manga book will have about **30 to 60 printed pages**. This amount will be paid in Year 1.
- **HKD10,000** will be allocated for a **student helper** to help us carry out evaluation studies after the manga has been introduced in the courses: 1) key learning objectives evaluation based on students experience with the manga, and 2) a direct comparison between the manga and traditional textbook. The evaluation will take place in Year 2 of the project, and therefore the payment for student helper will start in Year 2.
- **HKD20,000** will be used to pay for a professional artist to design the cover of the manga. Cover design is the most important element that will “make or break” readers’ interest in a manga. Hence, we must hire a professional to do this task. This amount will be paid in Year 1.

MATERIAL EXPENSES (HKD4,000)

- **HKD4,000** will be needed to purchase various materials needed for the manga design, from ink, papers to pencils. This amount will be paid in Year 1.

CONFERENCE EXPENSES (HKD40,000)

- **HKD40,000** will be allocated for the PI and Co-I to attend conferences to present their manga. Therefore, we allocate HKD20,000 for each of the PI and Co-I for conferences. This amount will be paid in either Year 1 or 2, depending of the progress of the article write-up.

I. Background

The PI, Dr. Yanto Chandra, is assistant professor at the Department of Public Policy, with joint appointment with the Department of Management, at City University of Hong Kong since 2013. His research focuses on social innovation, entrepreneurship, social investment and entrepreneurship in general. His research on social entrepreneurship has been published in leading journals including *PlosONE and Social Enterprise Journal*, as well as edited volume and book chapters in *Routledge and Springer*. He has also published numerous scholarly articles in entrepreneurship and innovation and served as editorial board members of two prestigious journals. He has designed and taught several courses related to social entrepreneurship and innovation in the past 3 years in CityU, including the highly popular GE1218 Social Entrepreneurship; POL3900, Social Innovation & Public Policy, a mandatory for SE Minor at CityU (both at POL).

http://www6.cityu.edu.hk/pol/faculty_academic_teaching_detail.asp?id=9

The Co-I, Mr. Yu Ka Ho Albert, is an interdisciplinary artist who works with computer graphics, animation and photography. He has been an assistant professor at the School of Creative Media at City University of Hong Kong since 2013.

Prior to joining the university, Ka Ho had worked as a technical director and development lead on several Academy Award nominated animation films, including “Shrek 2”, “Robots” and the “Ice Age” series. His personal animations often employ experimental techniques in production and presentation.

The two channel computer animation, “Into the Air’s Memory”, has been exhibited and screened in various international festivals including Clermont-Ferrand International Short Film Festival, SIGGRAPH, International Short Film Festival, Berlin, Hong Kong Independent Short Film and Video Festival (IFVA) and among others. Ka Ho has served as jury member for the New York Foundation for the Arts, IFVA and various animation-related events.

His current research project explores the narrative strategies and cinematic aesthetics of immersive cinema with virtual reality technologies, and is supported by a Start-up Grant and a General Research Fund.

<http://yukaho.com/>

J. Signature(s) of Principal Investigator and Co-Investigator

Signature: Dr. Yanto CHANDRA (蔡振榮) Date: 5 March 2016
PI

Signature: Mr. Kaho Albert Yu Date: 5 March 2016
Co-I

References

- Angelidis, J., Tomic, I., & Ibrahim, N. A. (2004). Service-learning projects enhance student learning in strategic management courses. *Review of Business*, 25(2), 32-36.
- Austin, R. D., Nolan, R. L., & O' Donnell, S. (2009a). *The adventures of an IT leader*. Boston, MA: Harvard Business Press.
- Austin, R. D., Nolan, R. L., & O' Donnell, S. (2009b). The technology manager's journey: An extended narrative approach to educating technical leaders. *Academy of Management Learning & Education*, 8, 337-355.
- Brown, T. (2008). Design thinking. *Harvard business review*, 86(6), 84.
- Campbell, J (1949). *The Hero with a Thousand Faces*. Princeton: Princeton University Press.
- Dunne, D., & Martin, R. (2006). Design thinking and how it will change management education: An interview and discussion. *Academy of Management Learning & Education*, 5(4), 512-523.
- Eisner, W. (1985). *Comics and sequential art: Principles & practice of the world's most popular art form*. Tamarac, FL: Poorhouse Press.
- Eisner, W. (1996). *Graphic storytelling and visual narrative*. Tamarac, FL: Poorhouse Press.
- Jennings, D. (2002). Strategic management: An evaluation of the use of three learning methods. *Journal of Management Development*, 21, 655-665
- Joshi, M. P., Davis, E. B., Kathuria, R., & Weidner, C. K. (2005). Experiential learning process: Exploring teaching and learning of strategic management framework through the winter survival exercise. *Journal of Management Education*, 29, 672-695.
- Kolb, D. A. (1976). Management and the learning process. *California Management Review*, 18, 21-31.
- Proserpio, L., & Gioia, D. A. (2007). Teaching the virtual generation. *Academy of Management Learning & Education*, 6, 69-80.
- Short, J.C., Randolph-Seng, B., & McKenny, A.F. (2013). Graphic Presentation: An Empirical Examination of the Graphic Novel Approach to Communicate Business Concepts. *Business Communication Quarterly*, 76(3) 273 – 303.
- Short, J. C., & Reeves, T. C. (2009). The graphic novel: A “cool” format for communicating to generation Y. *Business Communication Quarterly*, 72(4), 414-430.
- Short, J. C., Bauer, T., Ketchen, D., & Simon, L. (2011). *Atlas Black: The complete adventure*. Nyack, NY: Flat World Knowledge.
- Simpson, C. (2007). *The debate over graphic books*. Library Media Connection, 25, 6.
- Wolf, G. (1996, January). The wisdom of Saint Marshall, the holy fool. *Wired*, 4, 124.