



**The Chinese University of Hong Kong**  
**Non-confidential Abstract of Technology Disclosure**

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**Title:**

**Digital Manga/Cartoon Stylization from Photographs and Videos**

**CUHK Ref. No.:**

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**Inventor(s):**

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**Non-confidential abstract:**

The manga/cartoon is a special artistic media, expressing stories with characteristic drawing styles which attract both children, teenagers and even adults. Its distinguished fine drawing style requires a very time-consuming and labor-intensive work. To speed up the production and reduce cost, some artists already employed commercial software which uses simple halftoning techniques in converting photographs to manga-alike drawing, even though the outputs are much inconsistent in style to the traditional manga. This evidences the need of manga automation. The main objective of this proposed research is to develop novel technologies that facilitate manga auto-generation from real photographs. It will free the manga artists from tedious basic elements production, so that he/she can focus on the overall layout and foreground characters design.

The availability of photographs and videos has been high nowadays; our system makes it feasible for artists to interactively generate scenery of a consistent style with traditional manga. Based on these materials, research issues to be addressed focus on generating style consistent manga drawing by mimicking the procedure that artists draw a manga, line drawing and optimization, segment based screening, and various effects, e.g. lighting effects, speed feeling etc. This is a premier system to provide manga artists with an efficient and facile way of manga production.

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