9. Appendix 1: Literature review

A desk-based literature review was conducted to understand digital platforms and craft sector, in particular, to gather information about the application of digital platforms for craft.

Desk research was divided into two directions: craft and digital platforms and try to find the connections from each direction. The first step of the research process was to look at current reports from Craft Council UK Research and Policy website and then use "snowball" techniques to find new sources and Google Scholar to look up references using keywords and main findings from the reports. The following keywords were searched from craft direction: definition of craft, digital craft, craft and creative industry, craft and social media (creative industry), craft and online platforms (creative industry), handmade, hand making, case studies craft makers handmade digital platforms, case studies craft makers handmade digital platforms, craft platforms, digital technology, online marketplaces, intellectual property, social media, and social network through Google Scholar and web of science.

Section 9.1 includes the definition of craft, categories of craft, some craft organisations and craft policy in the UK and China. Section 2 introduced the definition, usages and difference of digital platforms in the UK and China first, then summarised craft makers attitude about digital platforms as well as list some examples of online digital platforms.

9.1 About craft

9.1.1 The definition of craft

Craft is an activity involving a special skill at making things with your hands (Oxford English Dictionary, 2019). Formatted slightly differently, craft is a skill and experience, especially in relation to making objects (Cambridge English Dictionary, 2019).

The term 'craft' has been used and defined across a variety of disciplines, including but not limited to philosophy of art and aesthetics, art history and critique, practices art and design, and sociology. Overall, the historical narrative of craft by Adamson (2010) is:

With the onset of the industrial revolution in the late eighteenth century, craft began to suffer an irreversible decline - a process of deskilling and workplace alienation. In response, reformers and preservationists, most notably those associated with the Arts and Crafts Movement, emerged to rescue it. Though they were not able to maintain craft's economic value, they did raise awareness about its aesthetic importance and thus paved the way towards its rebirth as a distinct art form. Today more than ever, the artisan's place in culture is threatened by new technologies, from the internet to rapid prototyping. But a few institutions and individuals have been able to maintain a viable position for craft, partly by building new bridges to the worlds of contemporary art and design. This narrative tacitly underpins the logic of many craft institutions: magazines, councils, museums, educational establishments, and practitioners' organizations. It doubtless contains a great deal of historical truth. However, it can also be debated on almost every particular.

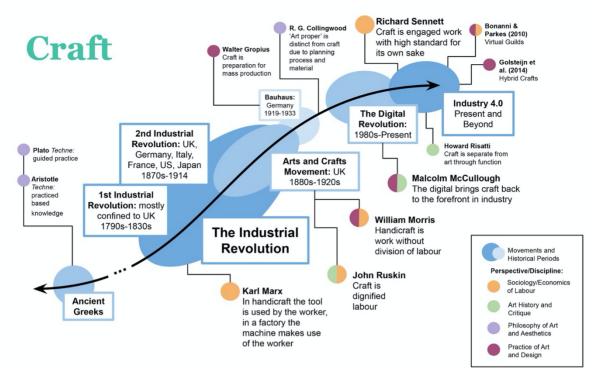


Figure 9.1 Summaries of the definition of craft by key figures in major historical periods

Philosophical understanding of craft and craftsmanship, for instance, stem from Plato and Aristotle's respective definitions of 'techne', or 'practiced knowledge' (Parry, 2014). Plato claimed that craft has a function, which is a kind of knowledge and defined by its goal. Collingwood (Kemp, 2016) sought to distinguish craft from 'proper art' due to planning process and materials.

In sociology of labour and economics, 'craft' seems to be understood as a skilled form of labour that is process based and driven by a desire for quality. A link to a tradition or specific locality also appears to be relevant. This largely stems from the conception of craft from the Arts and Crafts Movement, led by John Ruskin and William Morris. The Arts and Crafts movement perceived the working conditions brought on by the industrial revolution such as de-skilling, alienation, and divisions of labour as detrimental to workers and society. Karl Marx (Adamson, 2010) was a major influence in pointing out these effects of industrialisation.

Most contemporary understandings of craft also come from a labour context. Banks (2010, p. 3), for instance, defines craft in the framework of Sennett, and states that craft is "a form of skilled labour that is quality-driven, materially specific and motivated by internal, as well as external, rewards (Adamson, 2007; Sennett, 2007)". Bonanni & Parkes (2010) use Sennett's definition as well, but they emphasise that the term craft "encompasses a much broader context than skilled labour and promotes an objective standard of excellence in which craftspeople are shapers of culture, policy, and technology. The nature of craft is transdisciplinary; it is rooted in emerging materials, technological processes and cultural phenomena, and it is uniquely positioned to reflect new social values." (p. 180). In addition, craft is often contrasted against "artistic labour" (e.g. Banks, 2010 p. 11) which is perceived as more abstract and creative while craft is process and tool based, and also contrasted with "design labour", which is perceived as unlimited in scale and allows for outsourcing while craft is restricted to "hand making" (e.g. Luckman, 2018 p. 318).

New terms such as 'digital craft' and 'hybrid craft' have been coined to describe craft making process with digital materials or practices. Specifically, In Malcolm McCullough's book, Abstracting Craft-The Practiced Digital Hand (1998), he investigated the possibility of craft in the digital field and suggested an inclusive definition of digital craft in the computer age is needed. Computational crafts, a term used by Blauvelt et.al (2000), explored how to blend crafts and computation. Nitsche et.al (2014) define the term 'digital craft' is to describe production of digital artifacts (such as code) as well as in reference to digital production and prototyping methods. The tacit knowledge of handiwork meets digital creation". 'Hybrid Craft', is everyday creative practices of using combinations of physical and digital materials, techniques or tools, to make interactive physical-digital creations" (Golsteijn et al., 2014). A 'hybrid craft' object must have physical and digital components.

Craft in China

China has various crafts, and is famous for its long and splendid history and culture in craft. A book called "The Artificer's Records" (考工记,Kaogongji), which was written in the late years of Spring and Autumn periods (5th - 6th century BC), summarised more than 30 types of work, representing the highest level of human creation activities at that time (Daoyi, 2005). In ancient China, handicraft were usually referred to as "technique"(技艺), "design and make" (造作) or "craftsmanship" (工艺) (Yanzu, 1991, 2002). In modern times, as handmade products have gradually been replaced by machine production, "craft" (丰工艺) now often refers to methods of creation that do not involve mechanisation. With the introduction of the concept of "fine art" (芸術) from Japan to China, the compound word "crafts and arts" (工艺美术, *Gongyimeishu*) was introduced and has gradually become synonymous with handicrafts in industry and education since the beginning of the 20th century, and it still affects people's understanding of handicrafts today. The concept of "crafts and arts" (Gongyimeishu) includes key aspects of both "crafts" and "arts" - the emphasis on handmade methods, manual skills and the artistry of products (Kai, 2009). The earliest use of "crafts and arts" in China also included the connotations of practical art and modern design and was influenced by the Arts and Crafts movements in Europe.

According to the literature, Yuanpei Cai was one of the first persons who use the word "Crafts and arts" or "Arts and crafts" in China. In May 1920, Cai wrote in the article *the Origin of Fine Arts*.

Fine arts have a narrow sense and a broad sense. In a narrow sense, it refers specifically to architecture, sculpture, painting and arts and crafts (including decorations, etc.) and so on. In 1929, Zhifo Chen said in the article *Art and Craft of Modern Expressionism*: "Craft is an industrial activity that adapts to the element of human daily life - practicality, and integrates and embraces the role of art". Derong Zhang also wrote in *Art Life*, which was founded in April 1935:

"'Crafts and arts' is a new term in China, but it's not a new career. It has a history of thousands of years. The so-called 'Crafts and arts' is 'Practical Arts'. In other words, the one who adds fine arts design in the manufacture of daily life appliances can be called 'Crafts and arts'."

After the founding of the People's Republic of China, along with the establishment of the Central Academy of Arts and Crafts (the predecessor of the Academy of Arts and Design, Tsinghua) there was an emergence of "Arts and Crafts Service Departments" all over the

country which included the history of Chinese arts and crafts. Arts and crafts industry and guilds also appeared which became the most important foreign exchange industry in China before the reform and opening up.

On July 22nd, 1957, Rubing Bai, the director of the Central Handicraft Industry Administration, said in a speech at the National Crafts and Arts Artists' Congress that "China's 'Crafts and arts' have thousands of years of history", and the categories of Arts and crafts mainly include "ceramics, embroidery (including embroidery, lace picking, mending flowers, spinning, tapestry, etc.), dyeing and weaving (including all kinds of cloth printing and dyeing, cotton and linen wool fabrics, brocades, cashmere, silk weaving, carpets, etc.), clothing (including all kinds of clothing, dance clothes, costumes, etc.), metal technology (including Cloisonne, iron flower, gold and silver jewelry, jewelry inlay, etc.), sculpture (including bamboo carving, wood carving, jade carving, stone carving, ivory carving, clay sculpture, etc.), lacquer ware (including carved lacquer, bodiless lacquer ware, etc.), weaving (including all kinds of bamboo, rattan, brown and grass products), as well as art printing, children's toys, sandalwood fans, materials, musical instruments, paper cutting, silk umbrellas, velvet and silk paper flowers, etc. "

In the 21st century, the concept of craft has been revisited to not only include the content of traditional handicrafts but also extended to related fields of modern design and art. The key to the contemporary views of craft in China is that handmade characteristics along with humanistic values and the cultural meanings of handmade objects are at the core of Chinese craft.

According to Yongshan Yang (2001), "handicraft is a special cultural form, which is not only a technology, but also an art. In the past, it was called 'Crafts and arts'. Now it is included in the category of design art."

Yanzu Li (2015) thought: "crafts" not only refers to handicrafts represented by 'crafts and arts', modern design, painting, sculpture, calligraphy and other so-called pure arts are mostly related to crafts. Even in a certain sense, painting, sculpture, calligraphy and other so-called pure arts can also be said to be handicraft, the crystallization of hand work.

According to Yiyi Xu (2016): the process and result of manually changing the shape of a material (or a variety of materials) by some means (or a variety of means) is called "handicraft".

Figure 9.2 illustrates the development of the Chinese definition of handicraft from ancient China to the present day.

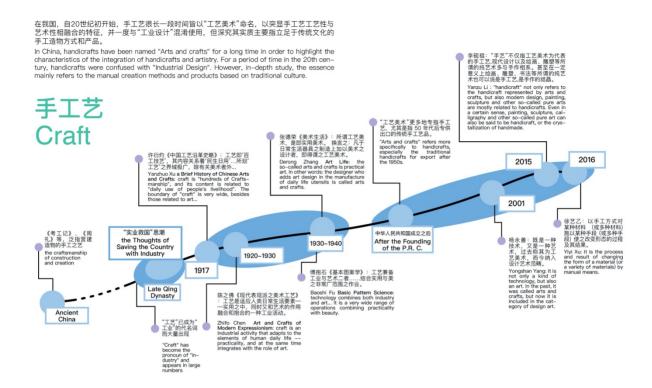


Figure 9.2 Summaries of the definition of craft in China over time

Overall, from the UK and Chinese literature, this report identifies four elements in craft making: i) planning, ii) material, iii) process, and iv) function (from Adamson, 2007; Sennett, 2007; Bonanni & Parkes, 2010; Banks, 2010; Kemp, 2016). This report characterises the key features of craft as: Craft is a skilled activity in which makers plan production, explore materials, and produce functional objects which inherit and ambrace cultural meaning.

9.1.2 The categories of craft

The Standard Industrial Classification of economic activity (SIC) and Standard Occupational Classification (SOC) codes are defined by the UK Office for National Statistics and are used by the Department for Digital, Culture, Media and Sport (DCMS), Crafts Council for surveys and studies into craft sectors businesses and workers (e.g. Spilsbury, 2018). The categories below (Table 9.1) are based on makers' job rather than the business that they do them.

These codes largely capture the wider "Creative Industries", a term that DCMS adopted in 1998 and have since shaped policy regarding the sectors defined by it (Burns et al., 2012 p. 16). The SOC categories, however, are limited because they miss many small or unregistered craft businesses, and have trouble identifying craft making from more industrial businesses (e.g., handmade ceramics versus industrial ceramic making) (Burns et al., 2012 p.11-14). It is worth noting that some sociological and economic understandings of craft work include sectors in the creative industries that have not traditionally been considered craft work; for instance, Banks (2010, p. 2) includes craftsmakers as those in the creative industries who perform more process-based tasks, e.g., "camera work, set-design, printing, lighting, model making, studio engineering, etc.".

Table 9.1 The categories of craft based on SIC and SOC codes

Craft category based on SOC code	Craft category based on SIC code
Smiths and forge workers (SOC 5211)	Mainly work in SIC 01.62 sector ('Support activities for animal products')
Weavers and knitters (SOC 5411)	Majority work in sectors relating to the 'Manufacture of textiles', with the biggest concentration working in SIC 13.20 ('Weaving of textiles').
	Smaller proportions work in SIC 22.29 ('Manufacture of other plastic products') and SIC 33.19 ('Repair of other equipment')
Glass and ceramics makers, decorators & finishers (SOC 5441)	Clustered around the glassmaking sectors (SICs 23.11, 23.12, 23.13, 23.19)
	Also with additional clusters relating to ceramics
Furniture makers and other craft woodworkers (SOC 5442)	Spread across a wide range of sectors with relatively low levels of clustering
	SIC 31.09 ('Manufacture of other furniture') and SIC 43.32 ('Joinery installation') both exceed 5%
Upholdsterers (SOC 5412)	30% work in SIC 31.09 ("Manufacture of other furniture")
	25% work in SIC 13.92 ('Manufacture of made- up textile articles')
Print finishing and binding workers (SOC	SIC 18.12 ('Other printing')
5423)	SIC 18.14 ('Binding and related services')
Other skilled trades not elsewhere classified (SOC 5449)	Spread thinly across the economy
	The only clusters are in SIC 32.12 ('Manufacture of jewellery and related articles') and SIC 74.10 ('Specialized design activities')

A concise category of crafts used by the Crafts Council (McAuley and Fillis, 2004) in a socio-economic survey of craft activity in England and Wales was presented in Table 9.2. This category is more based on craft's business and will be adopted in our surveys. Compared to the UK, China has a wider range of types of craft. The following table lists the main craft subsectors in both two countries.

Table 9.2 The categories of craft in the UK and China

China

The following is a concise categorisation of craft used by craft council (McAuley and Fillis, 2004) in a socio-economic survey of craft activity in England and Wales:

- Textiles
- Ceramics
- Jewellery
- Mental
- Wood
- Glass
- Furniture
- Fashion accessories
- Lettering
- Basketry

This categorisation was based on craft businesses and was adopted in the survey of our project. UK statistics, DCMS also have categories of craft based on makers' job. According to the evaluation method of Chinese arts and crafts masters in 2005, handicrafts can be divided into 11 categories:

- 1) craft sculpture (jade, wood, stone, puppet head carving, micro carving, other sculptures)
- 2) embroidery and dyeing (embroidery, dyeing, weaving)
- 3) carpet weaving (including carpet, tapestry, silk blanket, etc.)
- 4) draw lace and braid (draw lace, braid)
- 5) art ceramics (porcelain, antique porcelain, pottery, other art ceramics)
- 6) process glass (including materials, glass, crystal glass, etc.)
- 7) weaving process (straw weaving, other weaving processes)
- 8) lacquerware (including carved lacquerware, polished lacquerware, lacquer painting, etc.)
- 9) craft furniture (including hardwood, bone wood inlaid furniture, etc.)
- 10) metalworking and jewellery (metalworking, jewellery)
- 11) Other arts and crafts (artificial flowers, arts and crafts, handmade toys, other arts and crafts

9.1.3 Craft organisations/ communities

There are a wealth of national and local guilds and associations to support and boost crafts in the UK. Table 9.3 lists part of the craft organisations/ communities in the UK.

Table 9.3 craft organisations/ communities in the UK

Organisation	Location	Introduction
Craft Council	London	National development agency for crafts in the UK offers a crafts directory and magazine, plus information about its crafts collection available for loan. Also showcases new craft talent from the UK. https://www.craftscouncil.org.uk
The National Centre for Craft & Design	Lincolnshire	The National Centre for Craft & Design is an arts centre in Sleaford, Lincolnshire, which holds England's largest exhibition space for craft and design. https://nccd.org.uk
Craft Scotland	Edinburgh	Craft Scotland is the national development agency for craft. https://www.craftscotland.org
The Makers Guild in Wales	Cardiff	The Makers Guild in Wales is the National Craft Organisation for Wales and operates Craft in the Bay gallery in Cardiff. www.makersguildinwales.org.uk
Craft NI	Belfast	Craft NI, is the sector-lead body for the promotion and development of the design-led contemporary craft industry in Northern Ireland. http://www.craftni.org/
The Bluecoat Display Centre	Liverpool	The Bluecoat Display Centre is a haven for enthusiasts of everything exquisite in the field of contemporary craft and design. Situated in the heart of Liverpool. http://www.bluecoatdisplaycentre.com
Craft Centre and Design Gallery Leeds	Leeds	The Craft Centre represents UK designer/makers within a regular changing exhibition programme showcasing jewellery, wood, glass, ceramics and limited-edition prints. http://www.craftcentreleeds.co.uk
Manchester Craft & Design Centre	Manchester	Manchester Craft & Design Centre is the home to the studios of some of the region's most talented artists, designers and makers. https://www.craftanddesign.com
Craft Central	London	The creative community for imaginative thinkers, London craftspeople and craft-lovers in a landmark, historic building. https://www.craftcentral.org.uk/
Cockpit Arts	London	Supports and promotes talented designer-makers from all backgrounds through all stages of their career. https://cockpitarts.com
Craftspace	Birmingham	Craftspace is a Crafts Development Agency which aims to push boundaries and perceptions around crafts practice, presentation and learning. http://craftspace.co.uk

Corris Craft Centre	Corris	Corris Craft Centre is a craft and leisure complex in Corris. https://www.corriscraftcentre.co.uk
Sherwood Forest Art and Craft Centre	Edwinstowe	The centre is home to a variety of unusual crafts including textiles, fossils and gemstones, paintings, coppersmith, candles, fabric crafts, paper crafts, hand crafted chocolate, handmade soap and jewellery. https://www.newark-sherwooddc.gov.uk/sfacc/
The Maws Craft Centre	Telford	The Maws Craft Centre is a collection of art, craft and design studios. http://www.mawscraftcentre.co.uk
The Jinney Ring Craft Centre	Worcestershire	A craft centre which provides a home for crafts people who create and sell their own work. https://www.jinneyring.co.uk
Clevedon Craft Centre	North Somerset	Clevedon Craft Centre founded in 1971 by Jeffrey Bright and David Stear when, on leaving college, they started their business 'Stear and Bright silversmiths' in. It has a diverse range of artists and crafts people. http://www.clevedoncraftcentre.co.uk
Walford Mill Crafts	Dorset	Walford Mill Crafts is a centre of excellence for arts and crafts in Wimborne Dorset. http://www.walfordmillcrafts.co.uk
Cockington Court	Torbay	Cockington Court Is a craft centre, visitor attraction and creative business space. https://www.cockingtoncourt.org
Richmond MakerLabs	London	a community makerspace workshop in the middle of Ham https://richmondmakerlabs.uk
Makerversity	London	Makerversity is a makerspace which builds and run awesome spaces and provides learning programmes for young people. https://makerversity.org
FizzPOP	Birmingham	a non-profit basis makerspace in Birmingham. https://www.fizzpop.org.uk
South London Makerspace	London	South London Makerspace is a social community workshop in the heart of Herne Hill. It's owned, run and maintained by the members; there are no paid staff, so everything is done on a volunteer basis. https://southlondonmakerspace.org
Machines Room	London	Machines Room is a vibrant community of designers, architects, artists and engineers in East London. https://machinesroom.co.uk
London Hackspace	London	A non-profit hackerspace in London: a community-run workshop where people come to share tools and knowledge. https://london.hackspace.org.uk
Yorkshire Artspace	Sheffield	Yorkshire Artspace provides studio space to around 170 artists and makers across two studio sites in Sheffield city centre. http://www.artspace.org.uk

Table 9.4 lists part of the craft organisations/ communities in China.

Table 9.4 craft organisations/ communities in China

Organisation	Location	Introduction
长沙市望城区铜官陶 瓷行业协会 Tongguan Ceramic Industry Association of Wangcheng District, Changsha City	湖南省长沙市 望城区 Wangcheng District, Changsha City, Hunan Province	2013 年,望城区委、区政府专门成立了铜官陶瓷行业协会。2019年11月,《国家级非物质文化遗产代表性项目保护单位名单》公布,长沙市望城区铜官陶瓷行业协会被文化和旅游部认定为传统技艺"长沙窑铜官陶瓷烧制技艺"项目的保护单位。 In 2013, Wangcheng District Party Committee and District Government established the Tongguan Ceramics Industry Association. In November 2019, the list of national intangible cultural heritage representative project protection units was released, Tongguan Ceramic Industry Association of Wangcheng District, Changsha City was recognized by the Ministry of culture and tourism as the protection unit of the traditional technology "Changsha kiln Tongguan ceramic firing technology" project.
湖南工艺美术职业学院 Hunan Arts and Crafts Vocational College	湖南省益阳市 Yiyang City, Hunan Province	是全国 4 所工艺美术职业学院之一、全国 100 所国家示范性(骨干)高职院校建设单位之一、国家首批现代学徒制试点单位、湖南省非物质文化遗产保护研究基地。 It is one of the four vocational colleges of Arts and crafts in China, one of the construction units of 100 national exemplary (backbone) vocational colleges, one of the first batch of modern apprenticeship pilot units in China, and Hunan intangible cultural heritage protection research base. http://www.hnmeida.com.cn

9.1.4 Craft Policy

In the UK, there are only a small number of Government policies which relate to the craft sector. Craft, as part of the creative industry in the UK, situated within the policy framework of culture. The column of UK in figure 9.5 lists related policies about the creative industries which may impact the craft sector in the UK. A notable case is the 'Scottish Register of Tartans Act 2008', which lists all categories of Tartans and help the preservation of Tartans. For most of the time since the founding of the People's Republic of China, the supervision of handicrafts belonged to the light industry manufacturing department. More recently, since the rise of the concept of intangible cultural heritage and cultural industries in 2006, handicrafts have received increasing attention from the Chinese government. As a consequence, handicrafts and related cultural activities are managed by a wide range of departments in ministries in China. Handicrafts are now are mainly managed by the Ministry of Industry and Information Technology and the Ministry of Culture and Tourism. As a cultural undertaking, handicrafts are also managed by the Intangible Cultural Heritage

Department of the Ministry of Culture and Tourism, and some of the related culture and art of ethnic minorities are the responsibility of the Civil Affairs Commission. As a cultural industry, handicrafts are the responsibility of the Industry Department and Art Department of the Ministry of Culture. And finally, as a secondary industry, arts and crafts and other manufacturing industries are in the responsibility of the Light Industry Division of the Consumer Goods Department of the Ministry of Industry and Information Technology. Table 9.5 lists several of the many laws and regulations surrounding crafts in China.

Table 9.5 Craft policies in the UK and China

UK

Green Paper, Building Our Industrial Strategy (HM Government, 2017);

Let's Create- the new Arts Council England 10 year strategy;

The Cultural Learning Alliance- a good source of current gaps in creative education policy;

Scottish Register of Tartans Act 2008

China

Our (HM) 行七届,中国工艺美术大师评审(始于 1978 年,截止 2018 年共进行七届,中国工艺美术大师,是授予国内工艺美术创作者的国家级称号。最初将在工艺美术领域取得重大成就的人士命名为老艺人,中国工艺美术大师是根据《传统工艺美术保护条例》对符合一定条件且长期从事工艺美术制作的人员,由国务院负责传统工艺美术保护条例》(1997 年 5 月 20 日中华人民共和国国务院令第 217 号)此后,江苏省、河北省、浙江省、上海市、北京市、四川省、广东省、重庆市、河南省、山东省等全国各省市随后制定了各地的传统工艺美术保护条例及实施办法。

- ---国务院发布《关于加强文化遗产保护的通知》(2005年12月22日),并制定"国家+省+市+县"共4级保护体系。其中手工艺分属于传统美术、传统技艺类目中。
- ---《中华人民共和国非物质文化遗产法》、《国家级非物质文化遗产名录》(共计四批,国务院批准,由文化和旅游部(简称"文旅部")确定并公布)
- ---《中国传统工艺振兴计划》(2017,文化部、工业和信息 化部、财政部)
- ---《第一批传统工艺振兴名录》 (2018)
- ---《关于支持设立非遗扶贫就业工坊的通知》(文化和旅游部 办公厅 国务院扶贫办综合司,办非遗发[2018]46 号)

中国工艺美术大师评选(根据《传统工艺美术保护条例》对符合一定条件且长期从事工艺美术制作的人员授予的称号。)

《传统工艺美术保护条例》(1997 年 5 月 20 日中华人民共和国国务院令第 217 号)

《关于加强文化遗产保护的通知》(国务院于 2005 年 12 月 22 日发布, 并制定"国家 + 省 + 市 + 县"共 4 级保护体系。其中手工艺分属于传统美术、传统技艺类目中。)

《中华人民共和国非物质文化遗产法》、《国家级非物质文化遗产名录》(共计四批,国务院批准,由文化和旅游部(简称"文旅部"确定并公布)

《中国传统工艺振兴计划》(2017,文化部、工业和信息化部、财政部)

《第一批传统工艺振兴名录》(2018)

《关于支持设立非遗扶贫就业工坊的通知》(文化和旅游部办公厅 国务院扶贫办综合司,办非遗发[2018]46 号)

Selection of Chinese crafts and arts masters (according to *Regulations on the protection of traditional arts and crafts*, the title was given to those who meet certain conditions and had been engaged in Arts and crafts production for a long time.)

Regulations on the Protection of Traditional Crafts and Arts (Order No. 217 of the State Council of the people's Republic of China, May 20, 1997)

Notice on Strengthening the Protection of Cultural Heritage (issued by the State Council on December 22, 2005, and formulated a four-level protection system of "state + province + city + county". Handicrafts belong to traditional arts and crafts.)

Intangible Cultural Heritage Law of the People's Republic of China and National Intangible Cultural Heritage List (four batches in total, approved by the State Council and determined and published by the Ministry of culture and Tourism)

Revitalization Plan of Traditional Chinese Crafts (2017, Ministry of culture, Ministry of industry and information technology, Ministry of Finance)

List of the First Batch of Traditional Process Revitalization (2018)

Notice on Supporting the Establishment of Poverty Alleviation and Employment Workshops for Intangible Cultural Heritage (General Office of the Ministry of culture and tourism, General Department of Poverty Alleviation Office of the State Council)

9.2. Digital platforms

9.2.1 The definition and features of digital platforms

Platform refers to i) a particular computer technology that can be used with some types of software programs; ii) a method of communication or entertainment; and iii) a particular technology that is used for broadcasting television or radio programmes (online Cambridge dictionary- business English). The term 'digital platforms' is often defined vaguely and there

is no consensus on its definition so far. Studies on digital platforms tend to describe some characteristics of digital platforms and list a couple of examples to explain what digital platforms are and what they refer to when mention digital platforms (see Table 9.6 for examples from recent literature).

Table 9.6 The definition of digital platforms

Authors	Definitions
Van, et al., 2015	A digital platform provides a (technological) basis for delivering or aggregating services/content from service/content providers to endusers.
Ayodeji, et al., 2020	Digital platform is any electronic tool for communication includes desktop, mobile, social and email software this covers websites and Social Media - Twitter, Amazon, Wattpad, etc.
Loo, Q. O., & Dass, K. (2019)	An avenue to create a virtual classroom for educators and their students.
Pilkington,2017	A digital platform refers to the software or hardware of a website allowing for the interaction of its users.
(Ogundokun, et al., 2020)	A digital platform is an established device erected on present-day cloud technology that makes the evolution of software or programs easy. It is, nevertheless, not a product in itself. The services, applications, and solutions on the platform are the products that you as a customer will interact with and pay for.
Yousfani, K., & Khowaja, F. (2020).	Digital platform is the software and technology used to combine and streamline business operations and IT systems. A digital platform serves as a company's backbone for operations and customer engagement.

In our report, digital platforms refer to all kinds of use of digital technologies in craft activities, from social media (e.g., Facebook and Instagram) and online marketplaces (e.g., eBay and Esty) through to digital production tools (e.g., 3D printers and digital software), materials, and even makerspaces. The key elements involved in digital platforms are computer hardware and software, communication, Internet, or online-based community.

9.2.2 Usage of digital platforms

Different digital platforms have been applied to craft including: i) Digital technologies; ii) social media; iii) online marketplaces; iv) digital software; and v) others- e.g., online communities.

i) Digital technologies used in craft

Digital technologies such as 3D printing and laser cutting have been gradually applied in craft-making practice. According to a major survey of contemporary craft in the UK (craft council, 2012), 57% makers (over 2,000 participants) have used digital technology in some form in their designing or making progress. In addition, the survey noted that laser cutting machines and 3D printers are available at universities and colleges and therefore being

embraced by the next generation of craft-makers. These technologies make it much easier and quicker to replicate the makers' work.

An increasing number of studies on the combination of digital technology/techniques and craft are also carried out. For instance, Blauvelt et al. (2000) explore how computation and craft can be integrated, and Philpott (2012) explores how CAD/CAM technologies are incorporated into origami and textile making. McCullough (1998) claims, 'Partnership with technology are better than autonomous technology', which reflected digital technologies have influenced and somehow changed the way of craft making.

Table 9.7 lists some case studies that applied digital technologies for the different crafts. So far, digital technologies are more likely to be used in textile, ceramics and jewellery. And there is little research investigates challenges regarding the application of digital technologies to craft.

Table 9.7 Different digital technologies in different subsector of craft

Subsector	Introduction
Ceramics & CAD and 3D printing	Zoran & Buechley (2013) discuss using digital fabrication techniques to reassemble broken artifacts.
	Chittenden (2018) explore converts voice and breath data in combination with CAD and 3D printing to make bowls that replace voice with touch.
	Rosner et al. (2015) describe the making process of the 'Sound Bowl', which is a bowl that records and preserves an audio sample in surface undulations like a vinyl record. Illustrator vector files, laser cutting, and 3D printing were used to create the bowl
Ceramics & CNC design tools	Zoran (2015 p.391) - Kate Bunnell's ceramics using CNC design tools
Knitwear & CAD and 3D knitting machines	This study explores how CAD can be used to inform how to use 3D knit machines more creatively (Taylor and Townsend, 2014).
Jewellery & CAD and 3D printing	Zoran (2015 p.389) - Nine of Yael Friedman's 3D-printed Puzzle-Rings. She uses Selective Laser Sintered (SLS) 3D-printed nylon or 3D-printed wax and casting in sterling silver or brass to combine 3D puzzles with wearable jewelry and create puzzle rings.
e-Textiles (Textiles with Digital Elements, Code)	Rosner & Royaki (2008) - This study describes the prototype design and evaluation of Spyn, a digital tool for knitters that allows for information about the knitting process to be captured and digitally 'embedded' into the knitted product.

Rosner & Ryokai (2010) - A qualitative study about how crafts makers used Spyn, a mobile tool that associates digital records of the creative process (captured through audio/visual media, text, and geographic data) with physical locations on handmade fabric, to make a gift-giving (handmade garment).

ii) Social media used for craft

Instagram, Facebook, Twitter and other social media platforms are embraced by craft makers, which play an essential role in makers' daily activities. The survey of contemporary craft in the UK (craft council, 2012) mentioned about 7% of retailers made sales through social media. Luckman (2018) finds craftspeople (in Australia) believe that an online presence through social media is the "norm" and necessary to their business. Many middle-class backgrounds makers claim that they would hire a social media coordinator if possible. This indicates that social media is useful for craft makers, but it may difficult for makers to manage their social media especially if they have multiple social media.

Yair summarised five keys that social media could potentially benefit to the crafts sector: i) Selling. It creates new potential for craft e-commerce; ii) Adding value. It can be used to reveal the hidden stories behind the craft object and its maker; iii) Building audiences; iv) Positioning to find new professional and creative opportunities; and v) Networking to share information and resources and promote creative, collaborative opportunities (Yair, 2012).

Overall, it is noticeable that social media have a significant impact on the development of the craft industry, although the primary origin of social media is not for the craft. Further studies on topics such as comparing different types of social media for craft activities and identifying challenges for makers to master the skills of using social media are worthwhile.

iii) Online marketplaces for craft

Online selling has been an indispensable part of selling channels for craft makers in the digital age. 35.5% of makers (over 2,000 participants) use online methods for selling based on the major survey of contemporary craft in the UK (craft council, 2012). However, only 7% stated it was their most important selling route. The study also noted that Scotland was also more likely to be using Internet selling channels than the UK average.

There are mainly two formats of online marketplaces, one is the maker's website, and the other is the shared online platform. Many makers have their personal website and found their own website to be their most important online sales channel (craft council, 2012). A popular shared online marketplace in the UK is Esty (Luckman, 2013; Krugh,2014), where craft makers and sellers can create online market fronts from their own home. It is worth noting that Esty has been regarded as a twenty-first century craft movement by Krugh (2014), as it fulfils some of the original ideals of the Arts and Crafts movement by bringing workers in direct contact and control of their work and business. Bonanni & Parkes (2010) claim Esty is also a virtual guild because it also offers crafts makers the opportunity to find rare materials and tools that allows them to create unique pieces.

Online sales will bring makers more selling channel, but it also may have unavoidable challenges. For instance, a significant disadvantage of the online market is untouchable as

most customers are likely to touch the physical object before they make the purchase decision. Customers may decline to buy expensive craft items online due to uncertainty. It is necessary to understand the potential challenges for makers to use the online marketplace and seek some possibilities to address those difficulties.

iv) Digital software for craft

Digital software such as photoshop and illustrator can also facilitate craft activities. For example, photoshop can be used for designing posters for craft exhibitions. Craft makers can also use photoshop to optimise their craft pictures before posting on social media. Currently, there is not much research focus on exploring what and how digital software can apply for the craft.

v) Other forms of digital platforms for craft

There are some online communities which categorised separate or beyond from social media and online marketplaces also emerged for the craft. For example, *Instructable* is a community platform for people who like to make things. It makes easy for people to learn how to make anything by providing step-by-step instructions. People can explore, share and make projects range from craft to cooking. Classes and teaching are also offered.

In fact, the boundary among social media, online marketplaces and communities tend to be blurred. Many digital platforms integrate the networking, sales or collaborations together in order to meet the demand of craft industry. Esty, as mentioned in Section online marketplaces for craft, is not only an online marketplace for makers to sell, but also a place for makers to networking (Etsy blog) and buy materials. To some extent, website of *Craft Council* (it is the national development agency for contemporary craft in the UK) can be viewed as a digital platform for craft due to it includes shops, the directory (which introduces craft projects and makers), and its own magazines, etc.

9.2.3 The comparison of digital platforms for craft in the UK and China

There is much difference regarding the availability of digital technologies for craft between the UK and China, although the accessibility of those digital technologies between two may be various.

Social media, marketplaces, and online videos platforms differ from the UK and China. In the UK, social media is more likely to be used for promotion; while in China, social media like WeChat combine both the function for promotion and e-commerce. Both the UK and China have general online marketplaces (eBay vs Taobao) and more craft-focused online marketplaces (Esty vs Dongjia). The uses of online videos for craft are similar in the UK and China, such as sharing making activities and teaching making skills.

Makerspace, a collaborative workspace inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses digital technologies to no tech tools, are popular in the UK; while the live stream is well-welcomed among makers in China to prompt their craft activities.

Emails remain one of the common ways for makers in the UK to get in touch with customers and dealing craft related issues in their daily life. And there is a small number of makers tend to write their own blogs to record their craft activities.

Table 9.8 summary of digital platforms for craft in the UK and China

UK China Digital 3D printing, Laser cutting, CNC 3D printing, Laser cutting, CNC technologies Instagram, Wechat, QQ, Weibo, Facebook. Twitter. Social Media Pinterest, LinkedIn Online Esty, eBay, Amazon, maker's website Taobao, Dongjia, Tiaomiao, wechat, marketplace Weidian, Online YouTube, Daily motion, Vimeo Youku, tudou, Videos Four main Makers' spaces in London: N/A Makerspace Machines Room- East London's, South Makerspace, London Makerspace, Makerversity, London Hackspace. "DIY" Space for London Master Ropemakers Livestream N/A LeLive(乐直播), and Tiktok Blog Blogger, Wordpress, Tumbler Others **Emails**

9.2.4 Craft makers attitude toward digital platforms

Many makers, especially women makers, feel the need to learn additional skills regarding how to effectively use social media and online platforms (Burns et al., 2012 p. 25; Patel, 2019).

Patel (2019) shows that BAME women craft makers in the UK do not make full use of social media because they perceive themselves not to have the right skills to use it and therefore lack confidence, and also are concerned about exposure to online abuse. Naudin & Patel (2017) discuss women "cultural entrepreneurs" (note that this term is undefined) who take a more positive and active stance towards using Twitter to promote their businesses. These women use tactics such as performances of "perfection through imperfection", displays of expertise, as well as non-proactive techniques of re-tweeting professional news and avoiding sharing too much personal information.

However, Mayne (2016) investigates the impact of interactions on a Facebook group for women amateur knitters and crocheters and finds that the connection and affirmations of their creativity through the online group has an overall positive effect on well-being. Some commenters, however, mentioned loneliness as a reason to connect online, and not having other crafters to connect with otherwise - some commenters where happy about the solitude and 'loneliness' that came with knitting and crocheting.

With regards to attitudes toward incorporating digital materials and methods in craft making, Golsteijn et al (2014) present findings from running workshops in which participants make hybrid craft objects using their 'Materialize' toolkit, which includes building blocks with digital components. The participants of the workshop include self-described craftsmakers. Overall, the authors found the collaborative and creative processes displayed in the workshops to support the integration of physical and digital components in the craftsmaking process, and claimed the participants were positive about the experience. There was no specific reflection given from the craftsmaker's perspective, however, and no reflection on whether the craftsmakers considered hybrid craft making as 'craft making'.

9.2.5 Online digital platforms

Table 9.9 presents a list of online digital platforms that can be used to craftspeople.

Table 9.9 source about digital platforms for craft

	Introduction	Website
Instructables	Instructables is a community for people who like to make things. Makers post step-by-step instructions	www.instructables.com
Creative	It provides creative classes.	www.creativelive.com
Spoonflower	It is empowering the individual to create on-demand, custom-designed textiles	www.spoonflower.com
Kickstarter	Kickstarter, a crowd-sourced funding platform, helps creators find the resources and support they need to make their ideas a reality	www.kickstarter.com
The Creative Independent	The Creative Independent (TCI) is a growing resource of emotional and practical guidance for creative people, published ad-free by Kickstarter, a public-benefit corporation	https://thecreativeindependent.com
MeetEdgar	MeetEdgar makes it easy to schedule and automate your content on Facebook, Twitter, Instagram, and LinkedIn	https://meetedgar.com
Handmade Artists' shop	Handmade Artists' Shop is an online venue that sprung out of a group of artists from The Handmade Artists' Forum. The forum is a small growing	https://handmadeartists.com

	community of artists and crafters that have banded together to discuss their art and talents.	
Kitronik	Kitronik create high quality products and resources for education and makers.	
Patreon	It is a creator-founded company, helping creators build membership businesses with their biggest fans and generate predictable, recurring revenue from their creative work.	
Artfire	Online selling platform for artisans	https://www.artfire.com
Folksy	Folksy is the home of British craft - the place to buy handmade gifts and original artwork, sold directly by the artists and designers who have created them.	https://folksy.com
WowThankYou	WowThankYou offers you quality UK handmade gifts, homewares and artisan food and drink.	
Zibbet	Zibbet exists to help artists, makers and creative entrepreneurs sell more. It is an online selling platform and can manage multiple sales channels	www.zibbet.com
icraft	A platform to buy and sell handmade items	https://icraftgifts.com
Society6	It is a platform for artists from around the globe, uploading and selling their original works	

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