

# Asia Culture Gene

## Digital Platform

### Experiencing the Digital Archiving



亚洲文化基因--数字平台  
体验数字存档



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ZHANG Ting 张婷  
HU Xiao Chen 胡晓琛

Speaker

Moderator



Speaker

Technical  
Supervisor

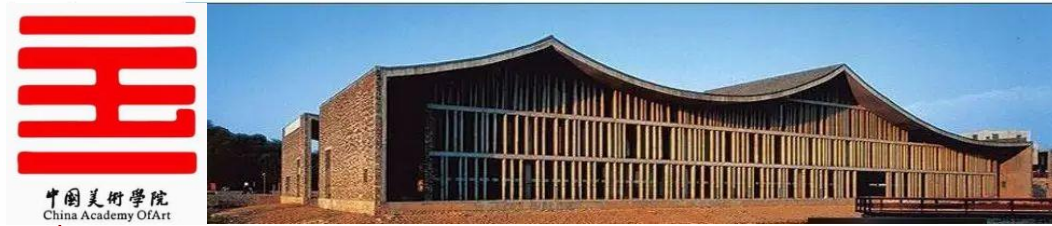


**Dr. ZHANG Ting | Lecturer in the China Academy of Art, School of Design & Innovation.** ZHANG has long focused on cross-cultural communication and artistic expression in international contexts, working on contemporary art curating, project management and art criticism.

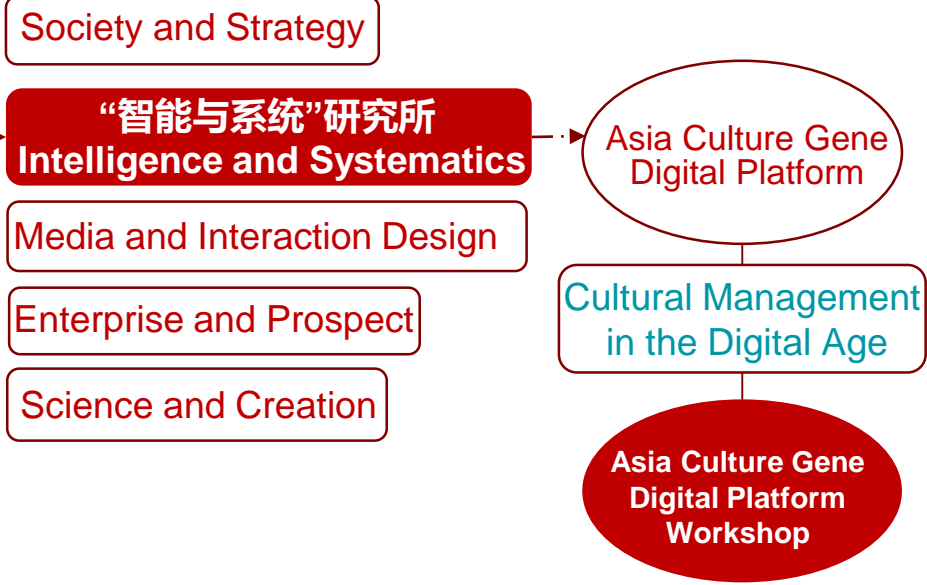
**Sissi HU Xiaochen | Associate Professor of Intelligence and Systematics Research Institute, China Academy of Art, School of Design & Innovation.** Supported by Young Scholar Developing Program of CAA, HU focuses on researches of interactive design and digital media design and education.



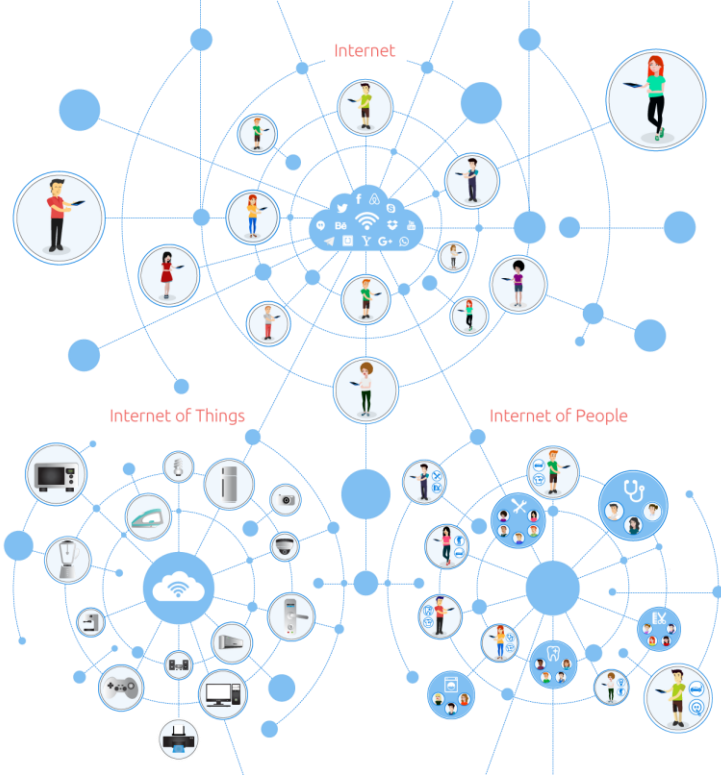
中国美术学院  
China Academy of Art  
<http://en.caa.edu.cn/>



创新设计学院  
School of Design & Innovation, CAA



## The Internet Evolves into the Internet of Things and People

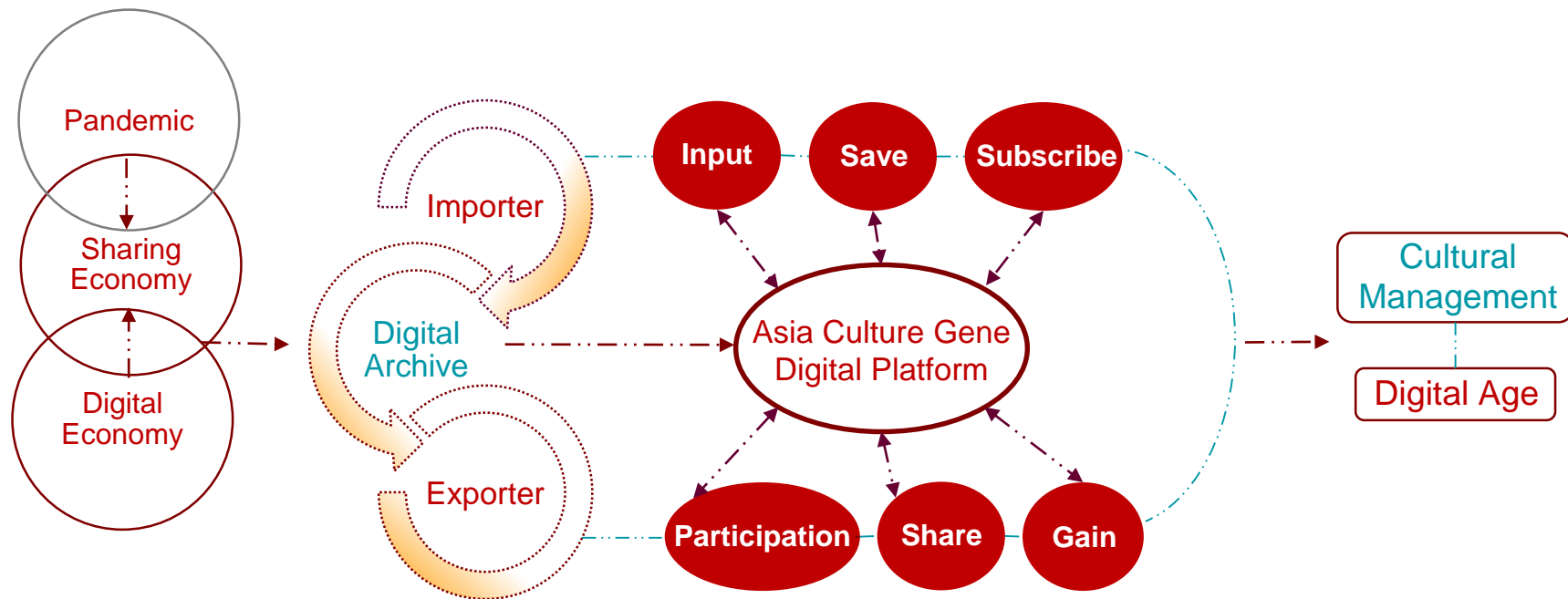


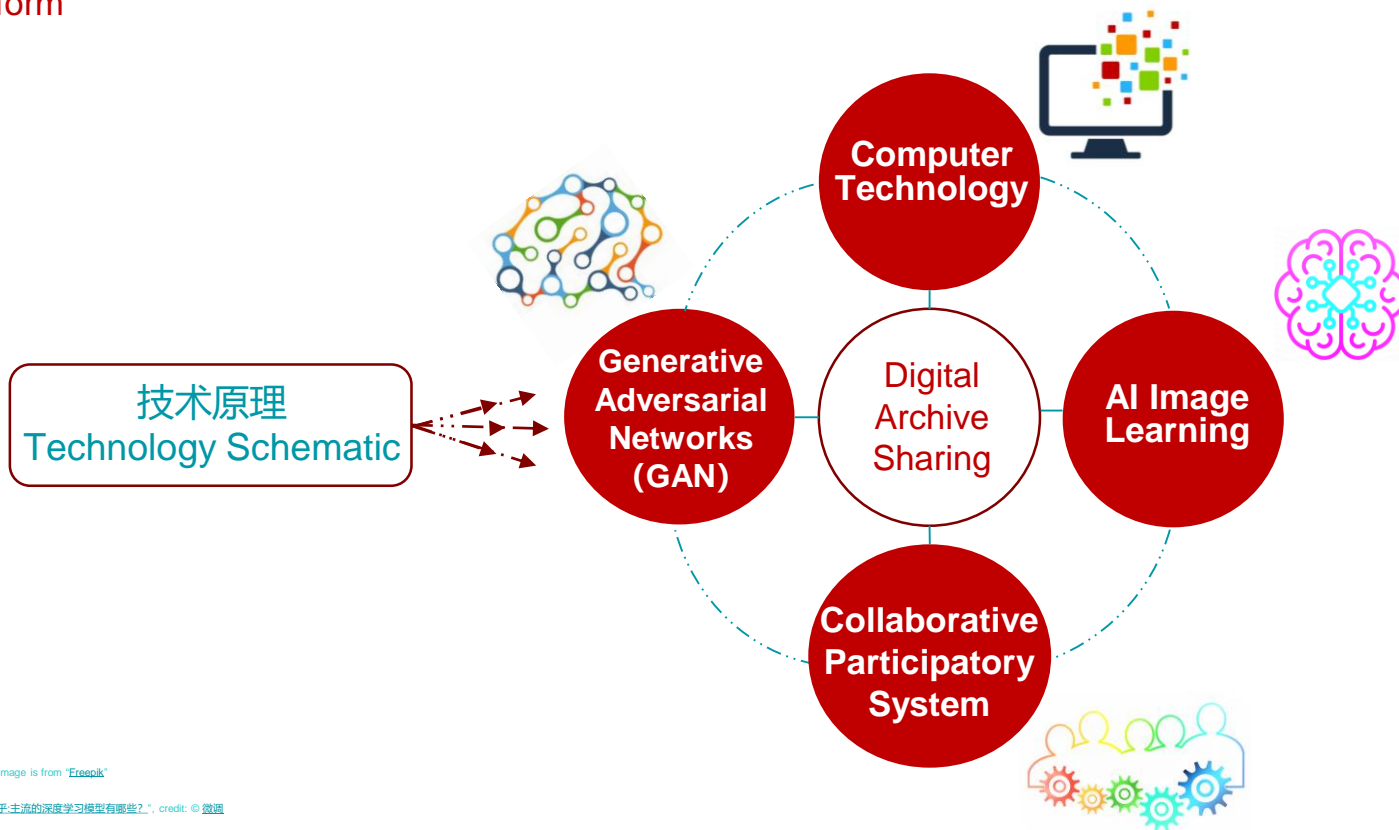
This image is from "100+ Digitalizing the sharing economy", credit: © Juan Manuel Candore, Pixer

We are all now connected by the Internet, like neurons in a giant brain.  
**--Stephen Hawking**

**Internet of People** refers to the digitalization of relationships between people and the collection, processing and application of personal data.  
**-- DNV, Norway**

All networking functions take into consideration that Internet devices can be users' personal devices, and therefore exploit models of the human behavior to determine the way these devices should operate in the network.  
**-- Marco Conti / Andrea Passarella, CNR, Italy**





Computer Technology: This image is from "Ereepik"

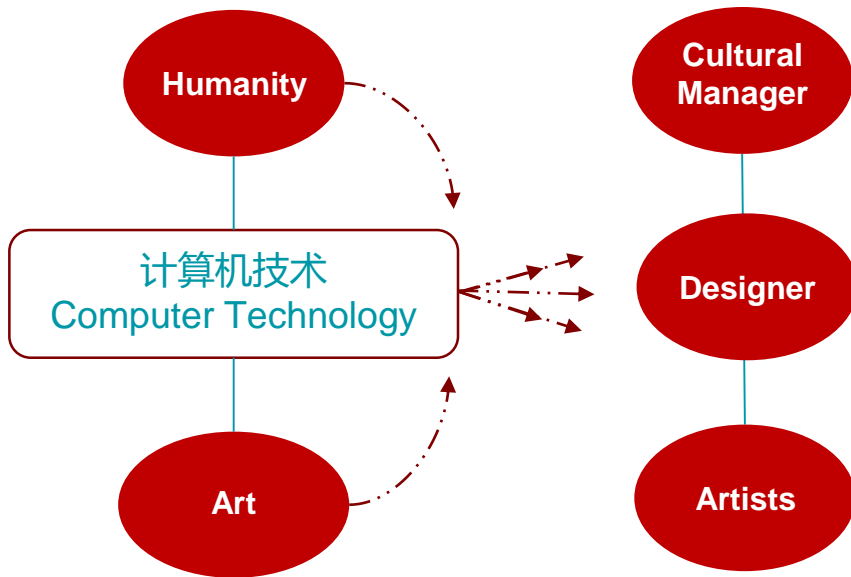
GAN: This image is from "知乎:主流的深度学习模型有哪些?", credit: © 微遇

Collaborative Participatory System: This image is from "PEGITEM", credit: © Bedaru

AI Image Learning: This image is from "Vectorstock"

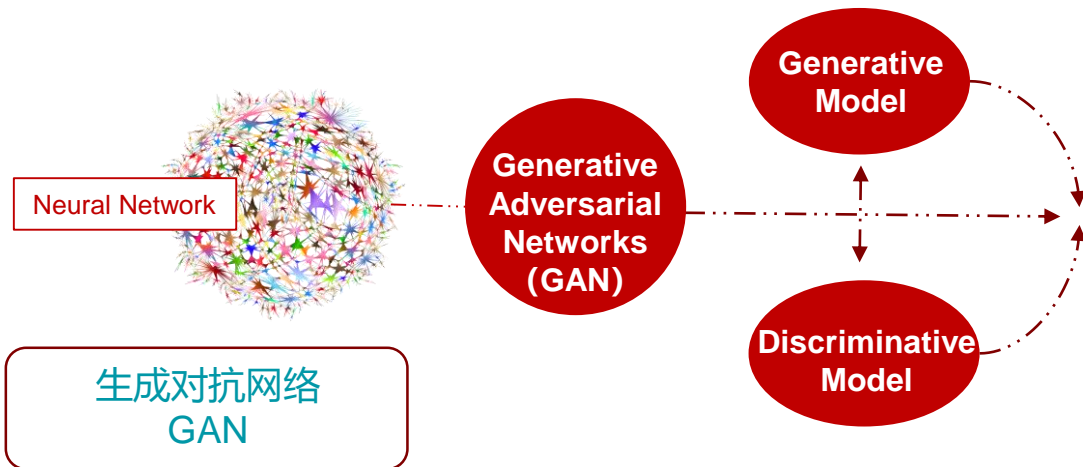


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Promote artists, designers or other cultural practitioners to explore, use and study the application of artificial intelligence technology in the field of art, design and culture with a more open mind, so as to promote the continuous development of computer technology, and then to provide more possibilities for the development of the management industry in these fields.





A new framework for estimating generative models via an adversarial process, in which we simultaneously train two models: a generative model  $G$  that captures the data distribution, and a discriminative model  $D$  that estimates the probability that a sample came from the training data rather than  $G$ . The training procedure for  $G$  is to maximize the probability of  $D$  making a mistake. This framework corresponds to a minimax two-player game.

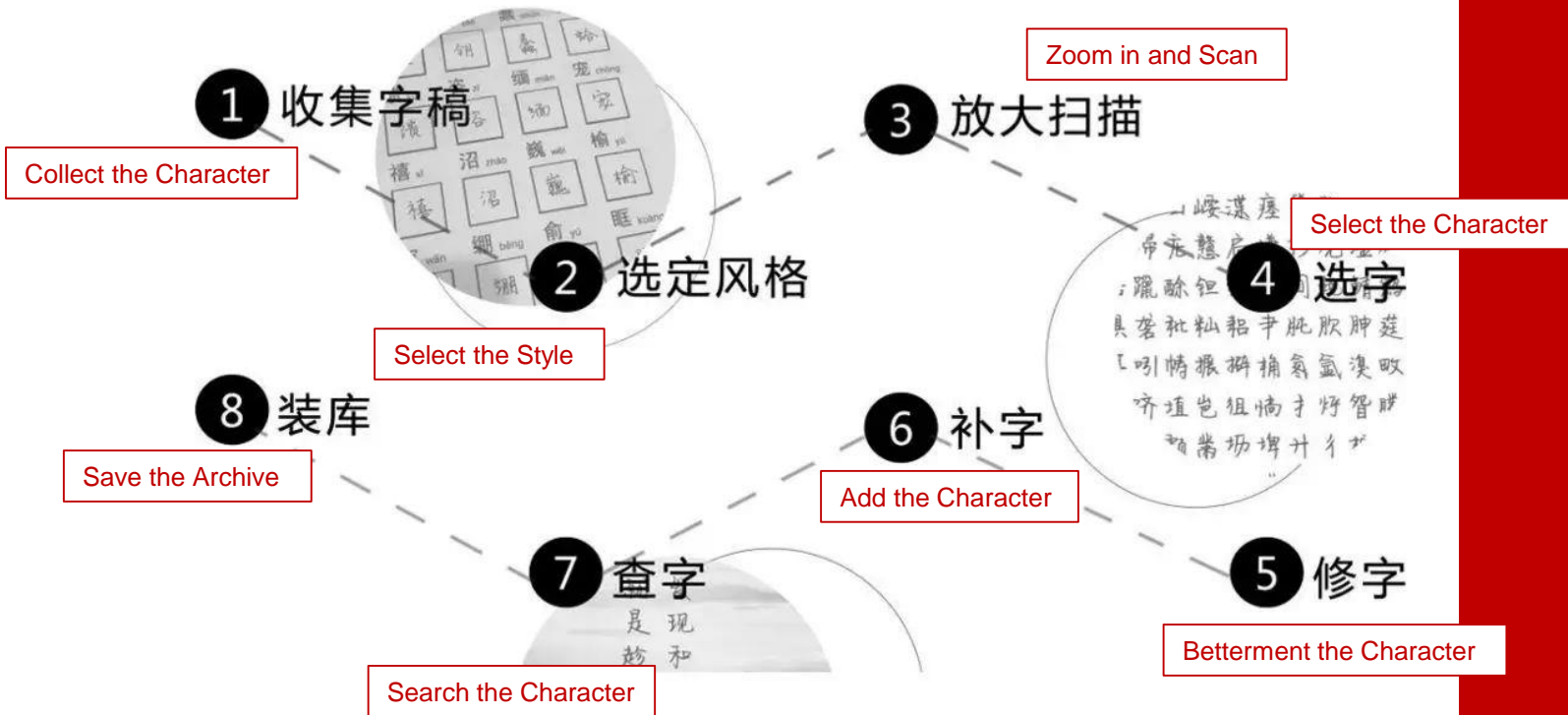
-- Ian Goodfellow

Neural Network: This image is from "Pixarboy", credit: © GDJ

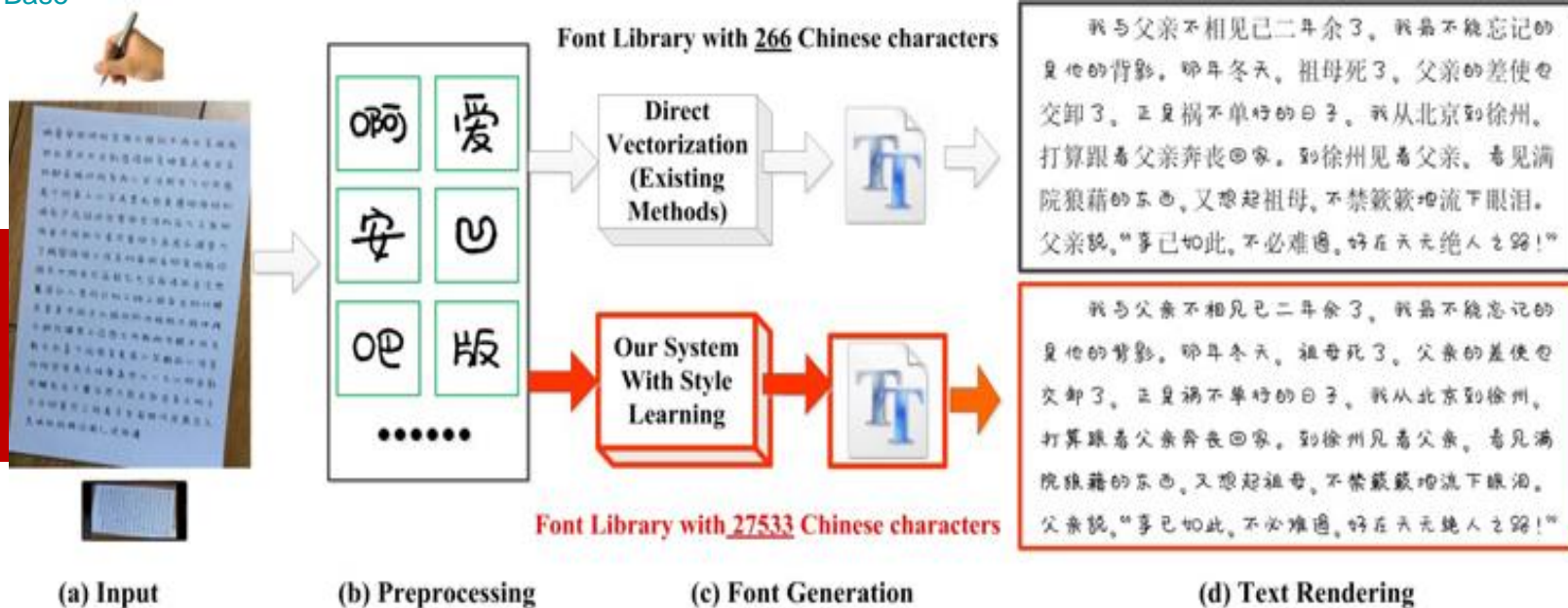


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Font Design Process

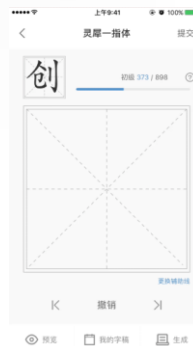


Mini Program *myfont.me*  
手迹造字




书写 100 个字，即可生成字库。  
书写字数越多，生成效果越完美。  
打造你的专属字库。

**Every 100 written characters generates a font. The more words you write, the more perfect it will be to create your own vocabulary.**



手迹造字

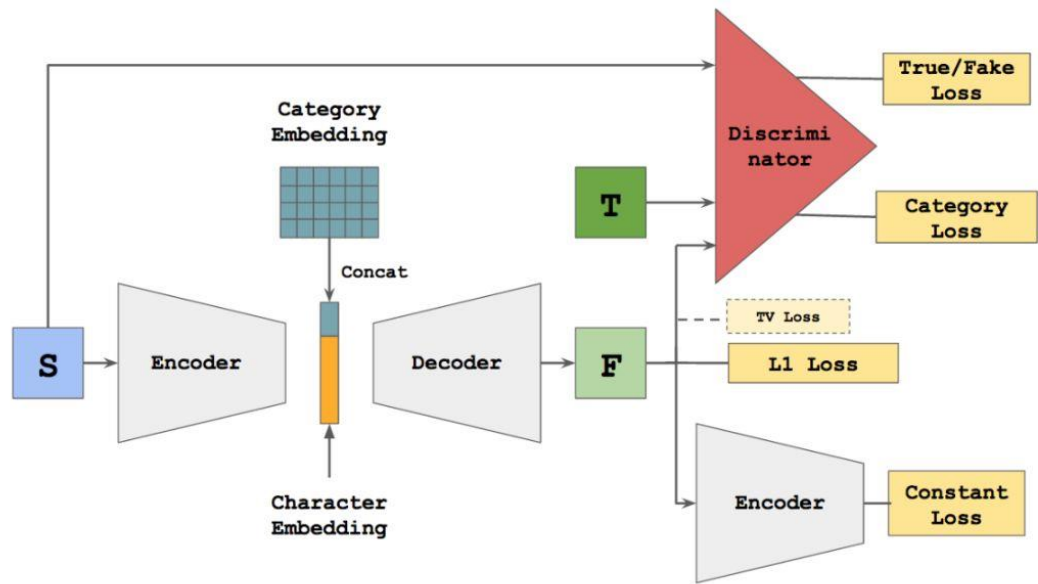
ZHANG Ting  
HU Xiao Chen

Cultural Management in the Digital Age

Cultural Management in the Digital Age



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zi2zi Model-Network Structure Diagram

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Model Training Process

Cultural Management in the Digital Age

zi2zi算法: This image is from "zi2zi算法", © kaonashi:lyc



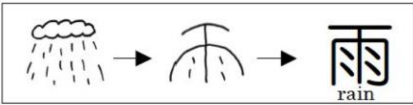
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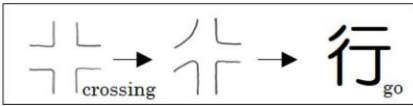
推 斷 的 新 方 法  
 字 型 進 行 自 動  
 東 亞 語 言 字 體  
 成 對 抗 網 絡 對  
 種 利 用 條 件 生  
 字 符 到 字 符 一



what

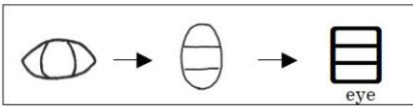


rain

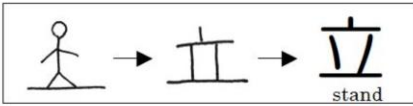


crossing

go



eye



stand

Development of Chinese Character

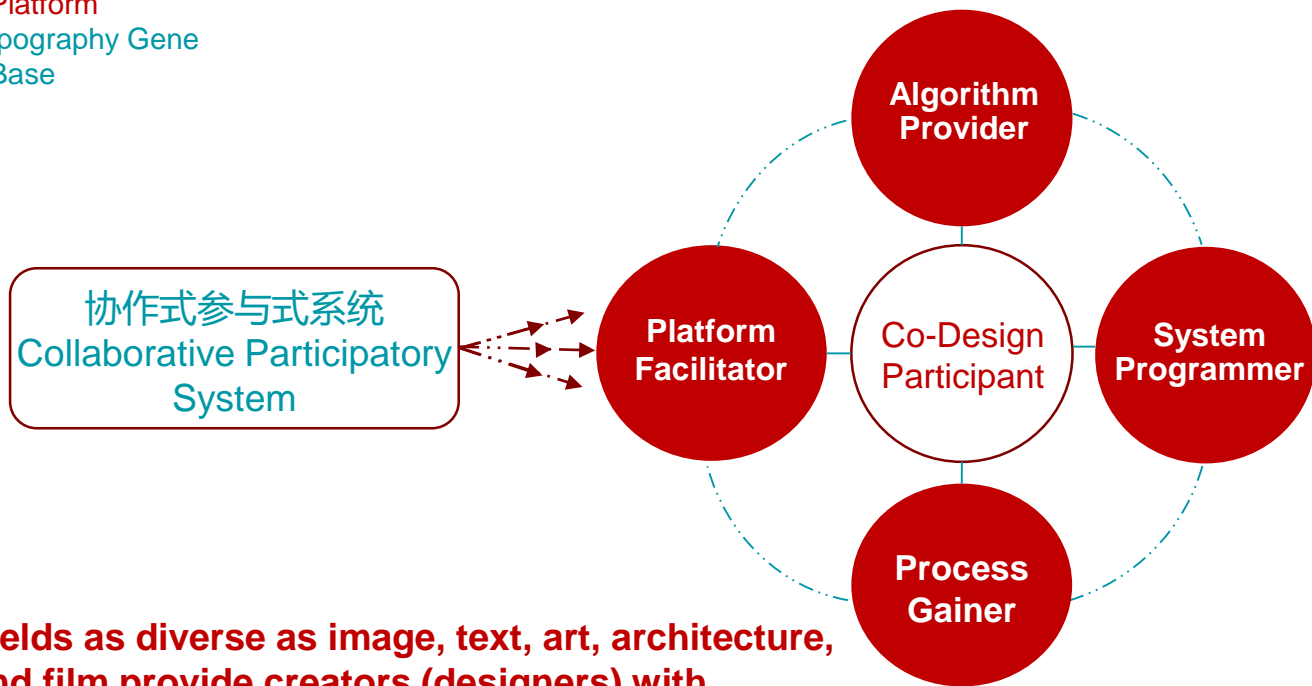
zi2zi Model Training Process

zi2zi算法: This image is from "zi2zi算法", © kaonashi/lyc

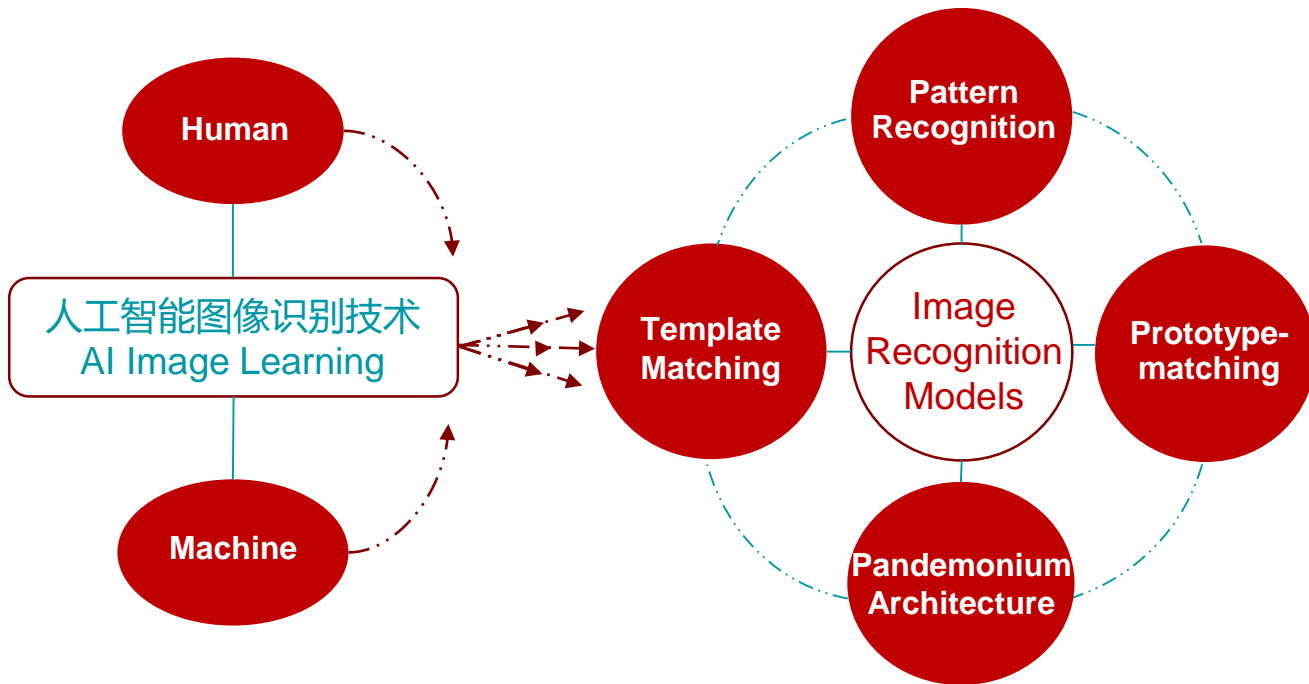


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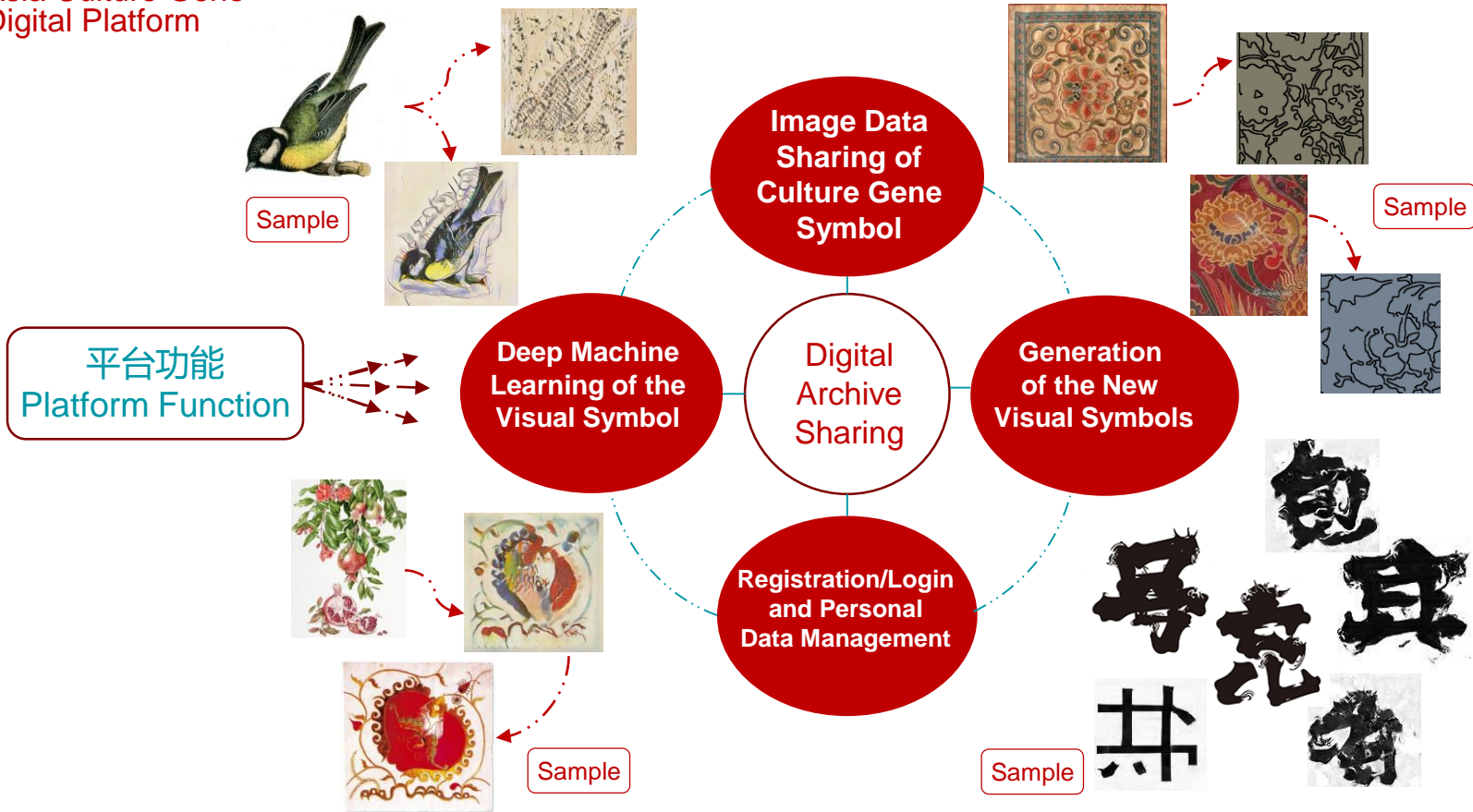
Asia Culture Gene  
Digital Platform  
Asia Typography Gene  
Digital Base



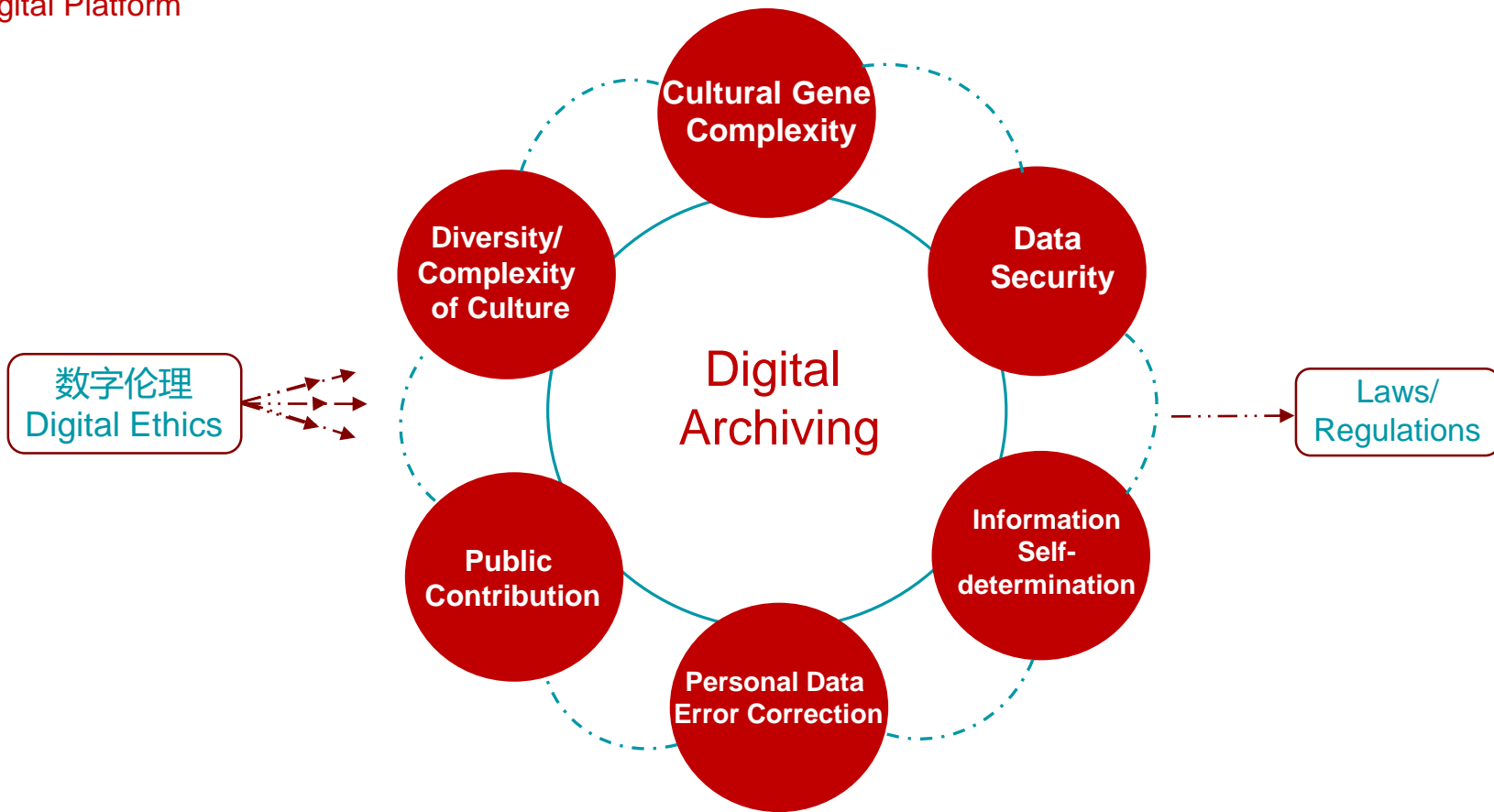
**Fields as diverse as image, text, art, architecture, and film provide creators (designers) with inspiration, or models that can be adapted, and provides an open repository of data management for cultural practitioners.**













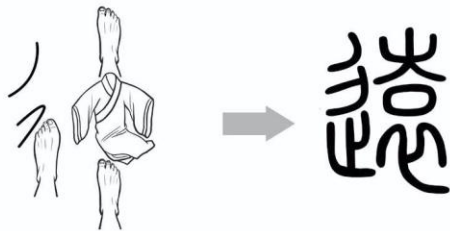
- Step 1** 文化基因的符号及其流变  
Symbols and Evolution of the Culture Gene
- Step 2** 每个学员周围的多元文化环境  
Multicultural Environment around Each Participant
- Step 3** 确定观察的焦点  
Determine the Focus of the Observations
- Step 4** 用相机或手机拍摄能够代表文化基因的视觉符号  
Capture the Visual Symbols that Represent the Culture Gene
- Step 5** 远程登录系统并上传自己所拍摄的视觉符号  
Log in to the System and Upload the Visual Symbols
- Step 6** 选择其它学员共享的数字档案  
Select Digital Documents that Shared by Other Participants
- Step 7** 使用文化基因视觉孵化器孕育新的视觉符号  
Use the Visual Symbol Incubator to Breed New Visual Symbols



畫

王維【唐代】

遠看山有色，  
近聽水無聲。  
春去花還在，  
人來鳥不驚。



想要抵达远方，就要走很长的路。

远

(yuǎn)

远

遠

小篆

遠

隶书

遠

楷体

“远”字本义为距离长，是一个形声字。该字繁体形式为遠，左边为“辵”，是“辵”的简体形式，有行走的意思，这里是说因为距离远，所以要走很长的路；右边为“袁”，“袁”字是说衣服长，这里是说道路很长。简体字“远”右边为“元”，“元”有开始的意思，这里是说从开始到终点要走很远的距离。后来，该字还指时间上的长久，如久远；也可表示人与人之间的关系不亲近，如疏远。

流程案例  
Process Sample

ZHANG Ting  
HU Xiao Chen



畫  
王維【唐代】  
遠看山有色，  
近聽水無聲。  
春去花還在，  
人來鳥不驚。

1 选择中国唐诗中的一个字  
Select one character  
from the Tang poem

2 为书写和设计字体做好基础的准备  
Prepare for writing and designing fonts  
Prepare the foundation

在白纸上用各种书写工具  
尝试书写，并将最终的成  
果扫描成图像

3 学习字形、字意以及字的由来  
Learn the form, meaning  
and origin of the character

上传用户自己设计的“字”  
Upload participant-  
designed “Character”

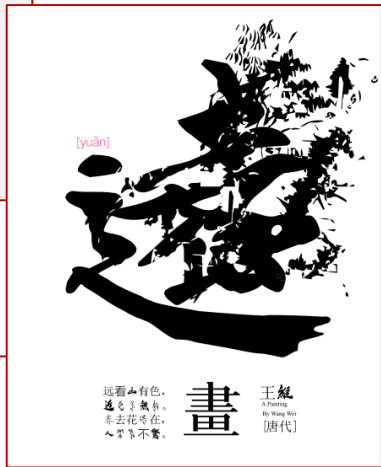
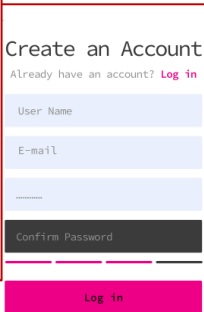
4 选择平台中提供的  
已经训练好的模型去生成新的结果  
Select the trained model provided  
in the platform to generate new  
results



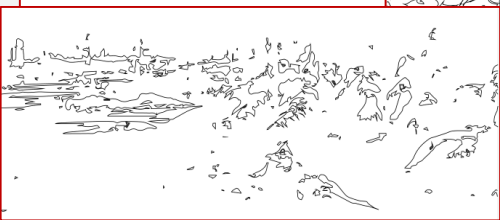
流程案例  
Process Sample

ZHANG Ting  
HU Xiao Chen



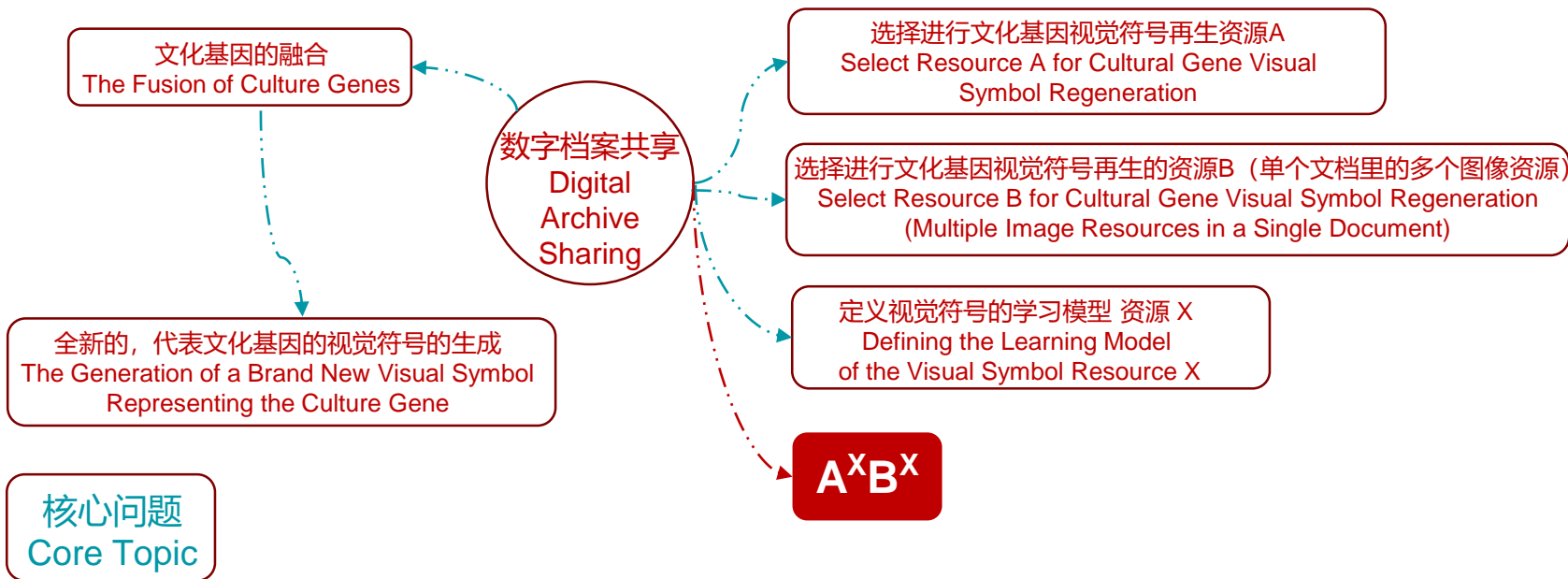


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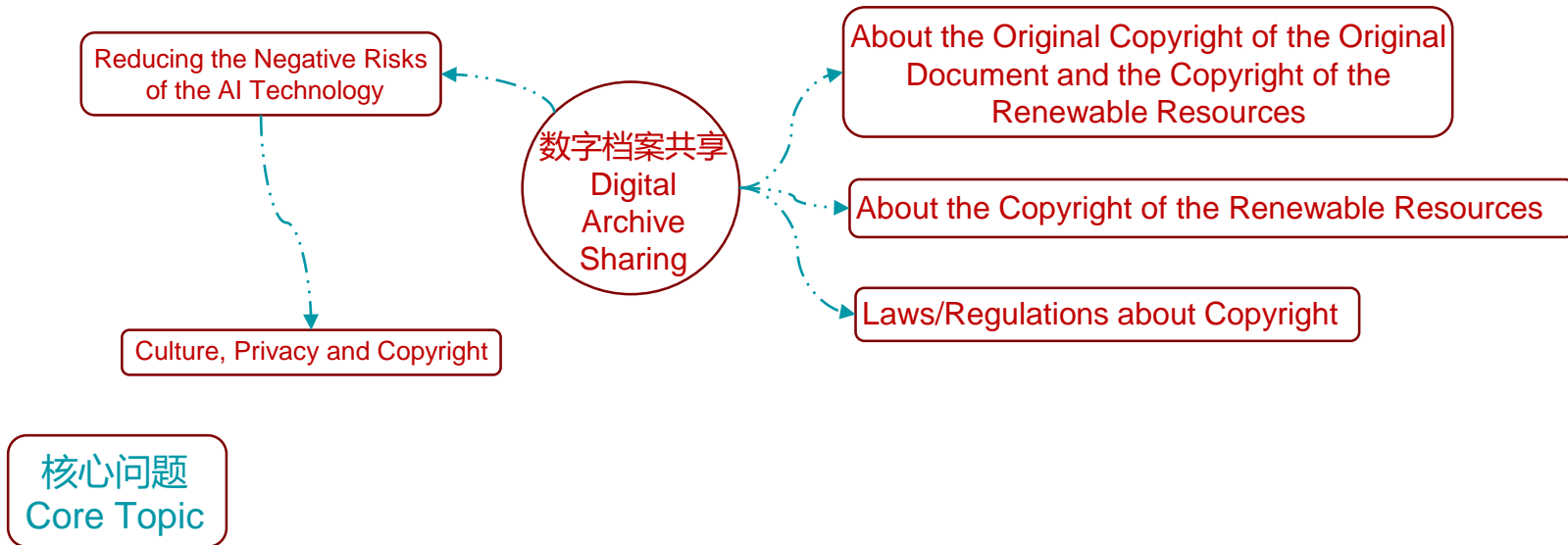


流程案例  
Process Sample





核心问题  
Core Topic



# Asia Culture Gene Digital Platform

## Experiencing the Digital Archiving



# Thank you!

Cultural Management in the Digital Age



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