Call for "anime" research(er)

some interesting facts about storyboarding and beyond

Jun Kato (**Arch Inc.**)

SIGGRAPH 2022,
Hybrid (Vancouver, CA & Online), August 2

ARCH|Research https://research.archinc.jp/en

Jun Kato

https://junkato.jp   @ junkato

- **The University of Tokyo** Igarashi Lab '09 BSc, '11 MSc, '14 PhD
- **Microsoft Research** Asia '12/1-4 Research Intern
- **Microsoft Research** '12/6-9 Research Intern
- **Adobe** Creative Technologies Lab, Seattle '13/8-11 Research Intern
- **National Institute of Advanced Industrial Science and Technology (AIST)** '14/4- Researcher, '18/10- Senior Researcher
- **Arch Inc.** '18/7- Technical Advisor, Arch Research PI

Research style: **a toolsmith for X**

I have developed tools (creativity support tools, toolkits, programming environments) to help people create something
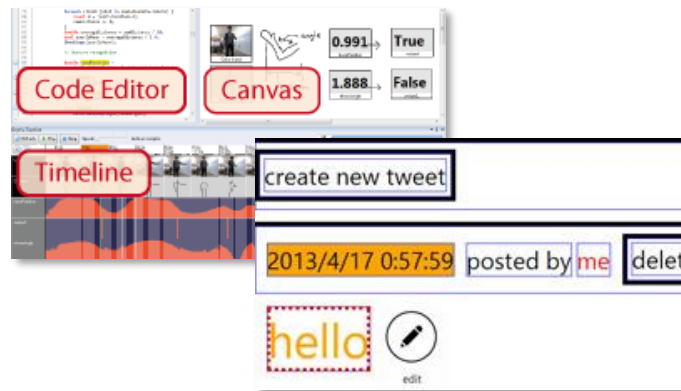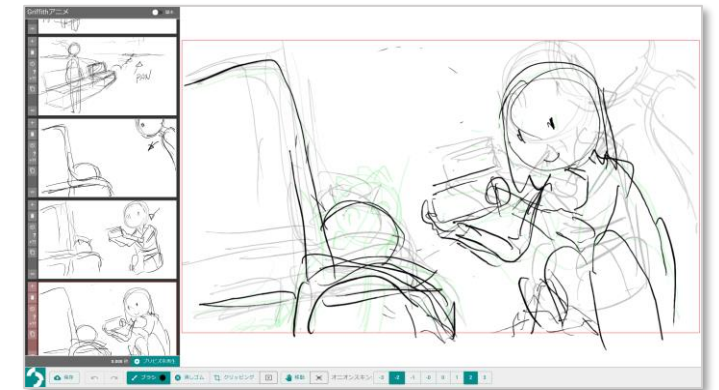

Programmers

DejaVu [ACM UIST '12]
TouchDevelop [ACM PLDI '13]

Musicians

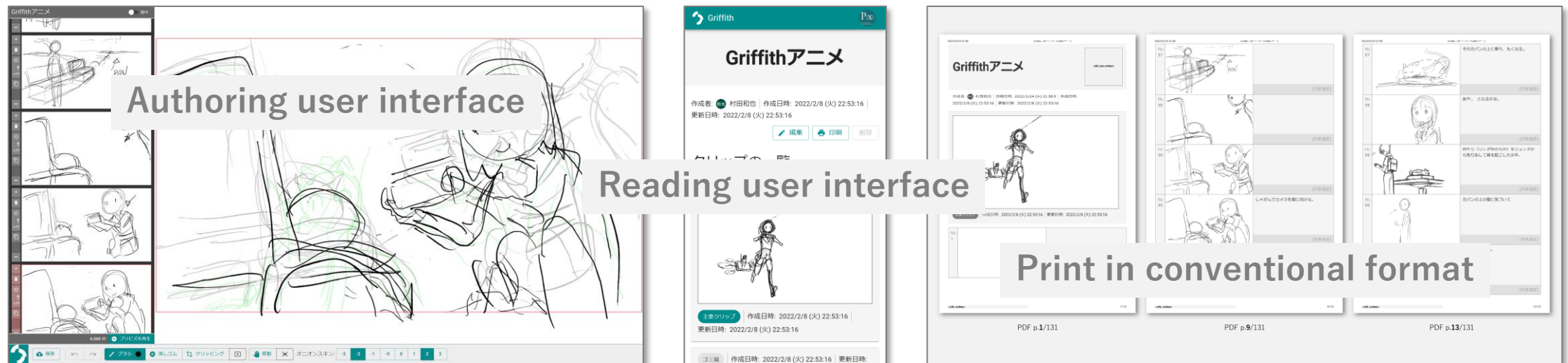**TextAlive** [ACM CHI '15]
Best Paper Honorable Mention Award

Anime directors

Griffith [SAS '21]
ISID 2021-2022 Best Poster Awards

More examples at https://junkato.jp/projects

Griffith: A Web-based Tool for Authoring Japanese Anime Storyboards

Authoring user interface

Reading user interface

Print in conventional format

Jun Kato, Ryotaro Mihara, Nao Hirasawa, "Past, Present, and Future of Storyboarding in Japanese Animation." Non-archival oral presentation at SAS 2021: Society for Animation Studies Annual Conference 2021.

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E-conte:
Japanese anime storyboards

- An A4 sheet of paper is divided into four to six rows

- Each row is composed of a "cut" number, a drawing in the cut, script, and duration of the corresponding cut.

- A **blueprint** of the actual anime film

This storyboard is from "Animation Technology 2019 Spring" p.2, drawn by Kazuya Murata for XFLAGS ANIME "Starlight Promises."

stage directions etc.   voice script

"cut" number   drawing   script   duration
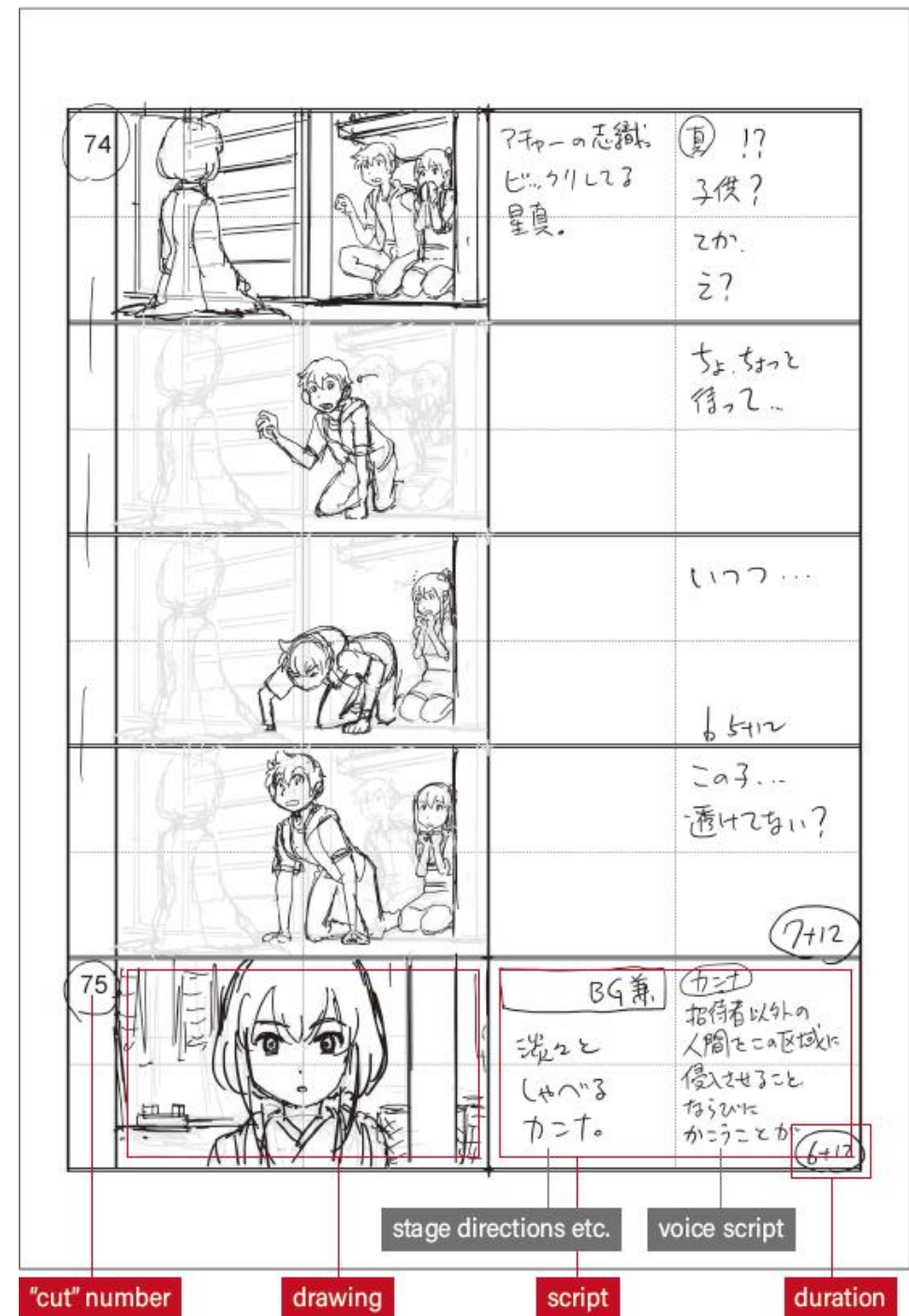
Initial findings of digitizing E-conte

Simply digitizing storyboards **didn't** work – lessons learned:
- For **directors'** creativity support, the user interface matters
- For **animators'** use, separate user interface is in need

We need to know more about what E-conte is...

This storyboard is from "Animation Technology 2019 Spring" p.2, drawn by Kazuya Murata for XFLAGS ANIME "Starlight Promises."

Who are we?

ARCH

- **Arch** is a Japanese animation production company with focus on helping production studios and creators

- **Arch Research** is a small R&D team in Arch with <u>interdisciplinary</u> academic researchers at its core

Dr. Jun Kato
Technical Advisor
Computer Science

Dr. Ryotaro Mihara
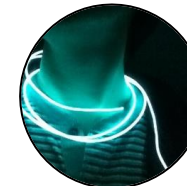**Global Business Advisor**
Cultural Anthropology
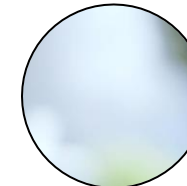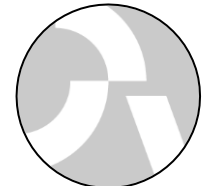
Tetsushi Suzuki
President

Nao Hirasawa
Founder

Sabyasachi Mukherjee
Research Engineer

Kenta Hara
Research Engineer

Kazumi Yoshimura
Research Engineer

Satoko Okuno
Assistant Project Manager

Storyboarding at Disney
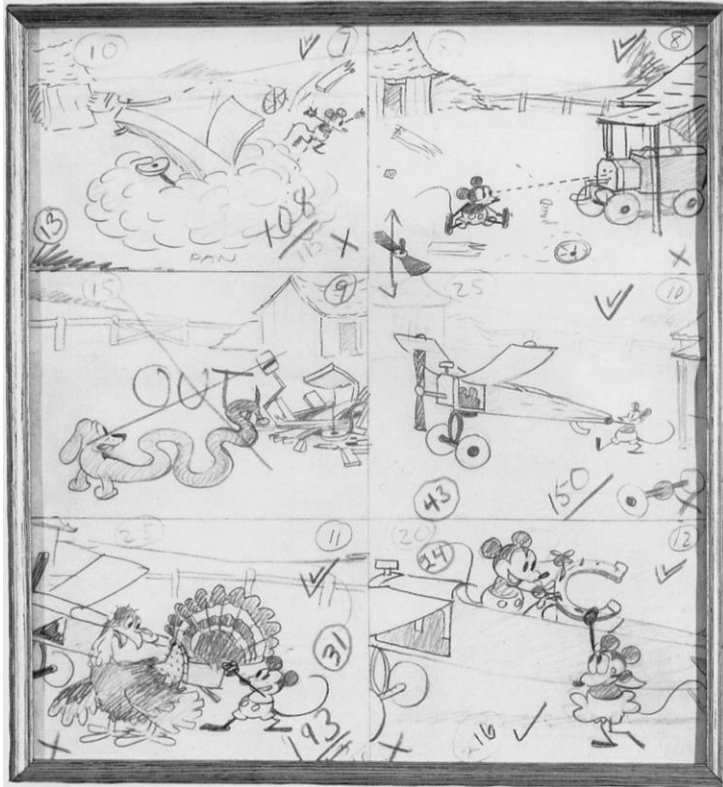## in late 1920s and 1930s

Figure 2.1 A series of story sketches detailing a scene from *Plane Crazy* (1928). Image provided courtesy of The Walt Disney Company (TWDC would like to make clear that they cannot confirm the red pencil markings, reproduced here in black and white, were made by Disney artists)

… **the six-panelled page** variety with separate written notes, and **the three-panelled page**, which incorporated the written notes alongside the vertically arranged sketches.

Chris Pallant and Steven Price, "Storyboarding: A Critical History," p.50

Storyboarding at Disney
## in late 1920s and 1930s

Figure 2.2 A promotional still, c.1933, showing a staged story planning session for *The Grasshopper and the Ants* (1934), featuring Webb Smith seated far left and Walt Disney in the centre. Image provided courtesy of The Walt Disney Company.

While **the roughly A4-sized, six-panelled page storyboard layout** remained in use at Disney, **the larger, cork-mounted variety** became the dominant pre-production storyboard arrangement.

Chris Pallant and Steven Price, "Storyboarding: A Critical History," p.53

Disney's impact in Japan:
Hiroshi Okawa (Toei and Toei Douga)

長編カラーアニメ
「白蛇伝」資料見つかる

絵コンテの第1稿
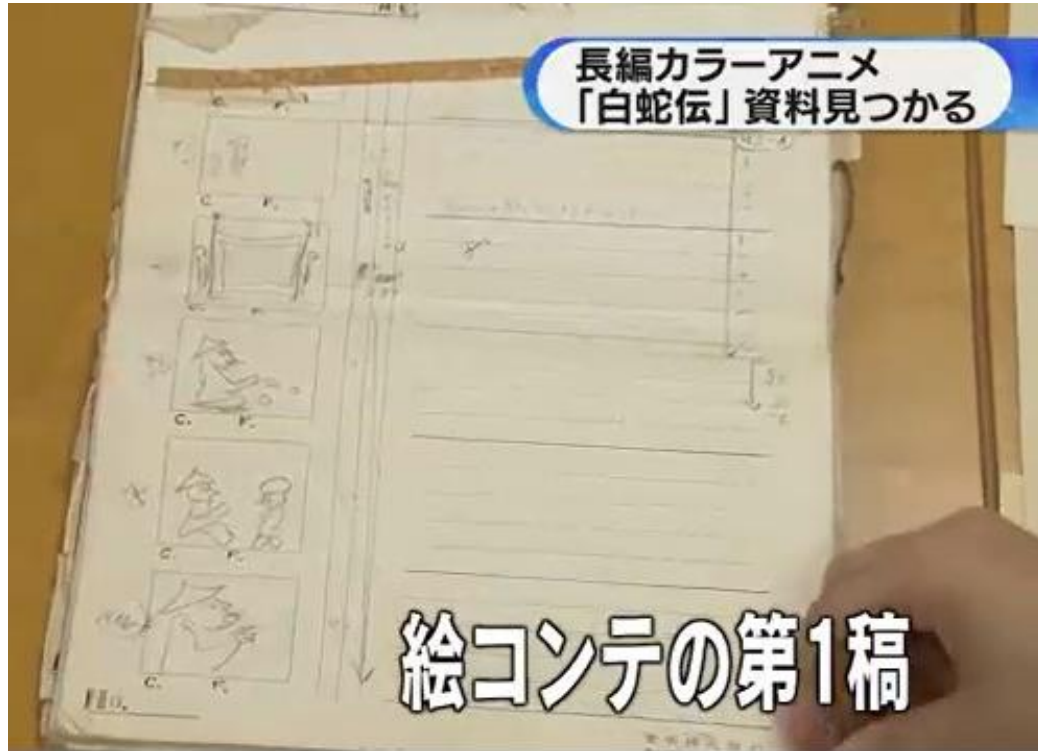
- **visited United States and Europe in 1953**

- distributed the first animated Japanese color film "Ukare Violin" in Oct 1955, produced by Nihon Douga

- bought Nihon Douga and established Toei Douga in Aug 1956

- produced **"Hakujaden," the first full-length animated Japanese film** in Oct 1958

[Image] NHK, https://www3.nhk.or.jp/news/special/sci_cul/2019/10/news/news_191026/

Yusuke Nakagawa, "Anime Taikoku Kenkokuki 1963-1973"
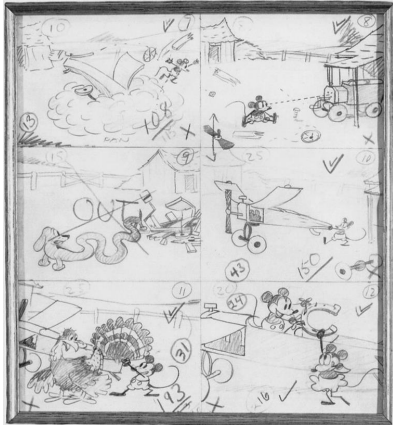
Missing feature in E-Conte: collaborations

Figure 2.1 A series of story sketches detailing a scene from *Plane Crazy* (1928). Image provided courtesy of The Walt Disney Company (TWDC would like to make clear that they cannot confirm the red pencil markings, reproduced here in black and white, were made by Disney artists)
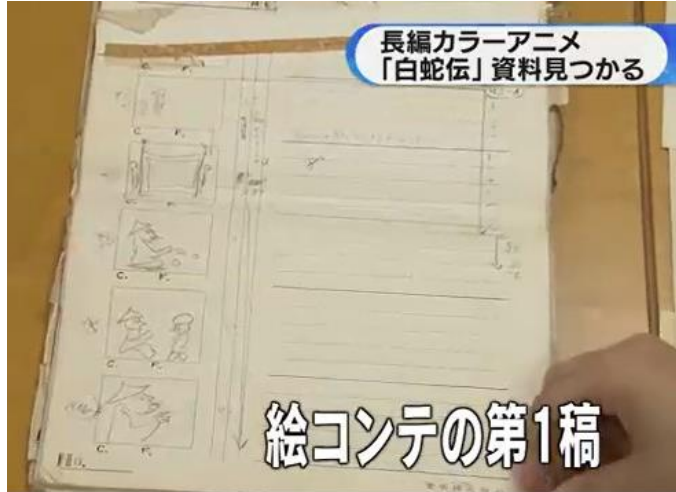

長編カラーアニメ
「白蛇伝」資料見つかる

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Figure 2.2 A promotional still, c.1933, showing a staged story planning session for *The Grasshopper and the Ants* (1934), featuring Webb Smith seated far left and Walt Disney in the centre. Image provided courtesy of The Walt Disney Company.

?

- The **"story corkboard"** part is completely missing
- Storyboarding process has usually been **handled secretively by a director** and not shared with others until its completion
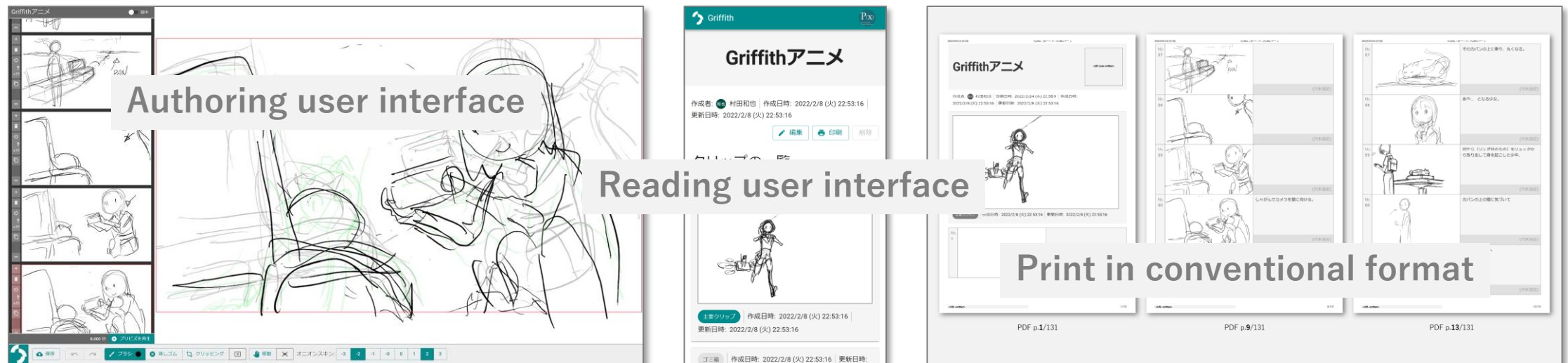
More detailed comparison in SAS 2021 slides:
https://research.archinc.jp/en/publications

[Images] Chris Pallant and Steven Price, "Storyboarding: A Critical History," p.50 and p.53 / Seiji Okuda, "Anime no Shigoto wa Omoshiro Sugiru," p.38

Roles of E-Conte

- **Digest**: understand scenario scripts passed from writers
  - revise and fix who does/speaks what
- **Animate**: turn the scripts into visual cuts
  - surround the characters with the environment
  - make the characters perform actions in specific timings
- **Direct**: pass directions to the production step
  - provide clear instructions to animators, compositors, audio professionals, etc.

From an interview with Kazuya Murata and the literature, "Eizo no Gensoku Kaitei-ban" by Yoshiyuki Tomino

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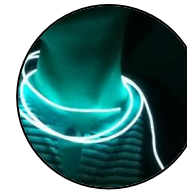**Dr. Ryotaro Mihara**
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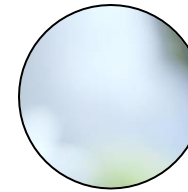

Tetsushi Suzuki
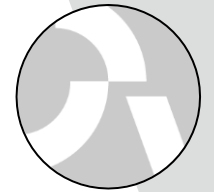President

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Kenta Hara
Research Engineer

Kazumi Yoshimura
Research Engineer

Satoko Okuno
Assistant Project Manager

ARCH|Research https://research.archinc.jp/en **We are ALWAYS looking for collaborators!**