

Leisure electronics as a cultural context for the emergence of the Swiss video game

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Keywords

game history, local history, oral history, media archeology, platform studies

INTRODUCTION

In this ongoing research, we will investigate the emergence of video game creation in the local area of French-speaking Switzerland. To explore that topic, we intend to study the transition between the 1960s and 1980s in terms of digital practices as entertainment, from a playful approach of electronics (robotics, ham radio, rail transport modelling, etc.) towards a playful approach of computing. Our objective is to analyse the origins of the practice of programming video games in French-speaking Switzerland. Our hypothesis is that computing was part of a broader leisure electronics practice and therefore shared a common cultural context and communities with earlier electronics practices. This might be suggested by the case of *Spacewar!* (1962) creators, who were members of a rail transport modelling club at MIT, before transitioning to creative computer programming (Jenkins 2007).

SMAKY COMPUTERS

This work is a preliminary research in a 4-year project – *Confederatio Ludens*¹ – aimed at studying the history of video games in Switzerland. Our source material will be composed of articles from scientific journals, specialised magazines, newspapers of the time, and interviews conducted both earlier by other scholars or by us today. For this study, we will focus on three central entities from this local context:

1. the *Laboratoire de micro-informatique* [Microprocessors Systems Lab] of the Swiss Federal Institute of Technology of Lausanne (EPFL), which existed from 1974 to 2000 and was led by Professor Jean-Daniel Nicoud,²
2. the *Microclub*, a club for hobbyists interested in microprocessors, created in 1976,³
3. the company Epsitec, created in 1978 and led by Cathi Nicoud, which sold the locally produced Smaky computers.⁴

We will also study three situations in which games were created in Switzerland between the 1960s and the 1980s.

In the rest of this extended abstract, we present the context of computer adoption in Switzerland and the research directions we are taking.

Proceedings of DiGRA 2023

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NICOUD, SMAKY AND EPSITEC

The early days of micro-computing, in the 1970s and beginning of 1980s, saw a broadening of access to the creation and manipulation of video games (Swalwell 2021). These games were malleable, from computer game listings – lines of code that had to be typed from magazines and were intended to be modified in the process (Sidre 2014, 103) – to the adaptations of traditional games, as well as games seen at the arcade, into video games, at home, at school, and at the university (Smith 2014, Ivory 2015). This would often be organised with the objective of learning programming and more broadly how to use and interact with computers (Papert and Solomon 1971). Games from this period have not been studied in depth yet in the case of Switzerland.

For this study, we are taking as a guide the paths of Jean-Daniel and Cathi Nicoud. Jean-Daniel Nicoud started his career as a physics teacher in the 1960s (Asaro 2011). He organised workshops on electronics, first for his students, and later for teenagers from French-speaking Switzerland. He would later become a professor at EPFL, notably participating in the commercialisation of the first computer mice and the creation of a series of microcomputers called Smaky. He would mentor many persons later making a career in computer science, some of them participating in the development of video games. Cathi Nicoud was the chief executive officer of the Epsitec company, originally created to sell the computers invented by Jean-Daniel Nicoud, between the end of the 1970s until the middle of the 1990s (Kirmann 1989). She played a central role in the creation and distribution of video games by the company. Sadly, she passed away in 2022, reminding us of the urgency to conduct research on objects from this period.

Their work and the work of their students and employees have been sporadically mentioned in writings and interviews. We will use these sources – local magazines (*Elemicro*, *Smaky News*, etc.), specialised magazines (*L'Ordinateur Individuel*, etc.) and general press (*Journal de Genève*, *Le Nouveau Quotidien*, etc.) – to explore the origins of leisure computing practice in Switzerland by situating which machines were available during which years, what kind of programming knowledge was common or even required, in which period and on which machine, in order to showcase how people were learning to program, and sketch what were the current practices when placed in front of a computer. Reproducing, modifying, or even creating video games were common practice when getting acquainted with computers.

THREE CASE STUDIES

Based on preliminary research, the following three case studies will help us explore and illustrate how the people involved came to develop electro-mechanical or video games, and with what goals. The first case study will be the *Nimmer*, an electro-mechanical adaptation of *Nim*, built in 1968 by René Sommer, a 17-year-old student. It was created in the context of an electronic club led by Jean-Daniel Nicoud for a national contest. Sommer would later study and collaborate with Nicoud, before making a long career at Logitech, a Swiss-US company specialised in the development of peripherals, for computer use and for video games.

Our second case study is a TV documentary (Schindler and Bard 1979) showing Jean-Daniel Nicoud and one of his assistants playing an adaptation of the arcade video game *Blockade* on a Smaky computer (see Figures 1 and 2). Answering a provocative question from the journalist – “*C'est pas un peu futile de jouer à des jeux électroniques dans un laboratoire universitaire ?*” [“Isn't it futile to play electronic games in a university laboratory?”], at 21min20s] –, Nicoud explains that his assistant created this application with the objective of learning to program and interact with the computer.

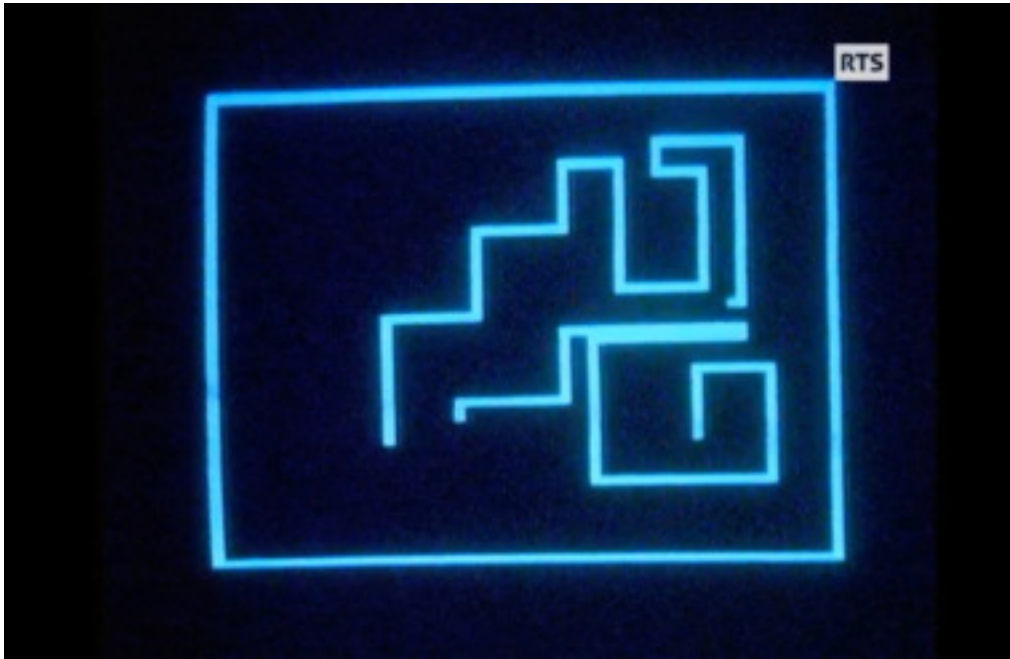


Figure 1: Screenshot from *La TV pour autre chose* [TV for something else], a documentary on national Swiss television TSR [today RTS] (1979), showing a port of *Blockade* (Gremlin 1976) played by Jean-Daniel Nicoud and one of his assistants on a Smaky computer.

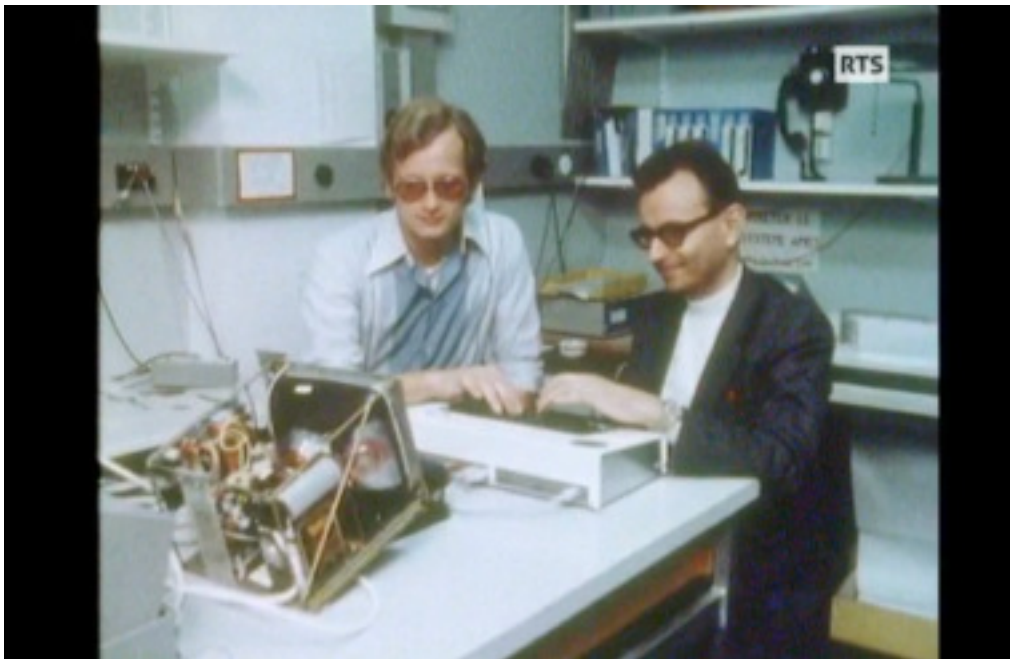


Figure 2: Screenshot from *La TV pour autre chose* [TV for something else], a documentary on national Swiss television TSR [today RTS] (1979), showing Jean-Daniel Nicoud and one of his assistants playing a port of *Blockade* on a Smaky computer.

Eventually, Jean-Daniel Nicoud shared with us a floppy disk containing computer games developed in the context of a course. The students ported classic games (*Chess*, *Go*, *Nim*, *Game of life*, etc.) and famous games of the time (*Pac-Man*, *Lunar Lander*, *Missile Command*, *Blockade*, etc.) in CALM, an assembly language used in the Smaky computers (see Figure 3).

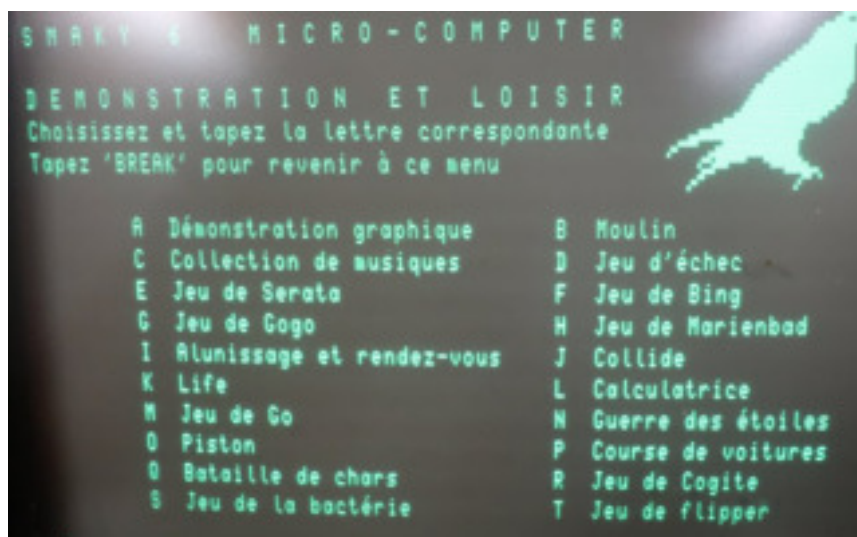


Figure 3: A photograph of the table of contents of the floppy disk shared with us by Jean-Daniel Nicoud.

CONCLUSION

Our research project draws on inspiration from game history, media archeology and platform studies to study the leisure electronics practices of French-speaking Switzerland between the 1960s and 1980s, connecting the experience of the early micro-computer users – hobbyists, students, and scholars – who acquired and utilised these devices. The research will use grounded theory method, based on an in-depth analysis of actors' experiences. Empirical data will be gathered through interviews and analysis of written sources such as industrial archives, newspapers, and websites. The project aims to analyse users' experiences of computer and video game programming, framing them within a broader practice of leisure electronics.

Our findings will provide valuable insight and contribute to media historical research in other regions where the early development and context of video game creation is yet to be fully explored.

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¹ The page of the project on the Swiss National Science Fund: <https://data.snf.ch/grants/grant/209248> Accessed on 2023-05-18.

² <https://archiveweb.epfl.ch/lami.epfl.ch/> Accessed on 2023-05-18. From 1974 to 1980, it was known as the *Laboratoire de Calculatrices Digitales* [Digital Calculators Laboratory].

³ <https://microclub.ch/> Accessed on 2023-05-18.

⁴ <https://epsitec.ch> Accessed on 2023-05-18.