



# *Snippets of User Interface History*

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An early statement on input-output

*Evaluation of Automatic  
Computing Machines*

FRANZ ALT  
National Bureau of Standards

## An early statement on input-output

*"The input and output organs have received less attention from designers than any other machine elements. Consequently they are still in a rudimentary stage."*

# Where are we ?

1941

1951

1961

# An early computer game

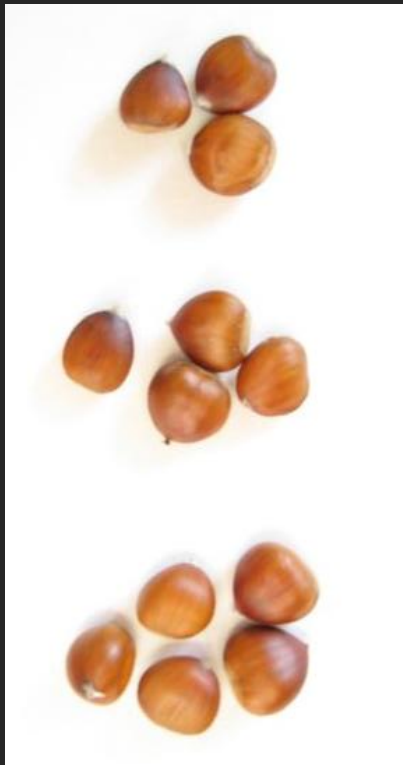


Piet Hein

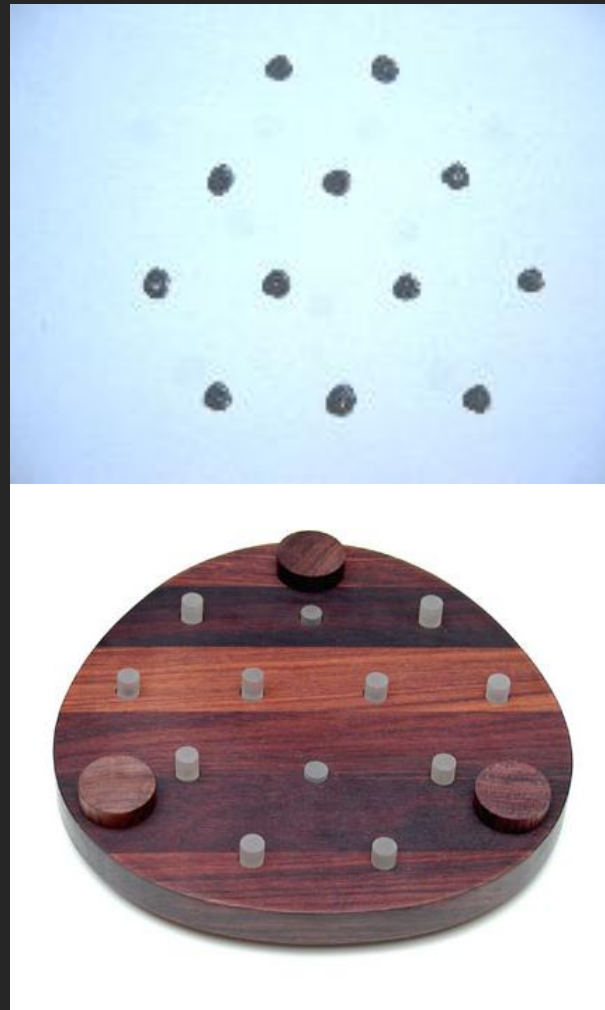


Søren Lauesen

# The revised Nim game



**Classic Nim game**



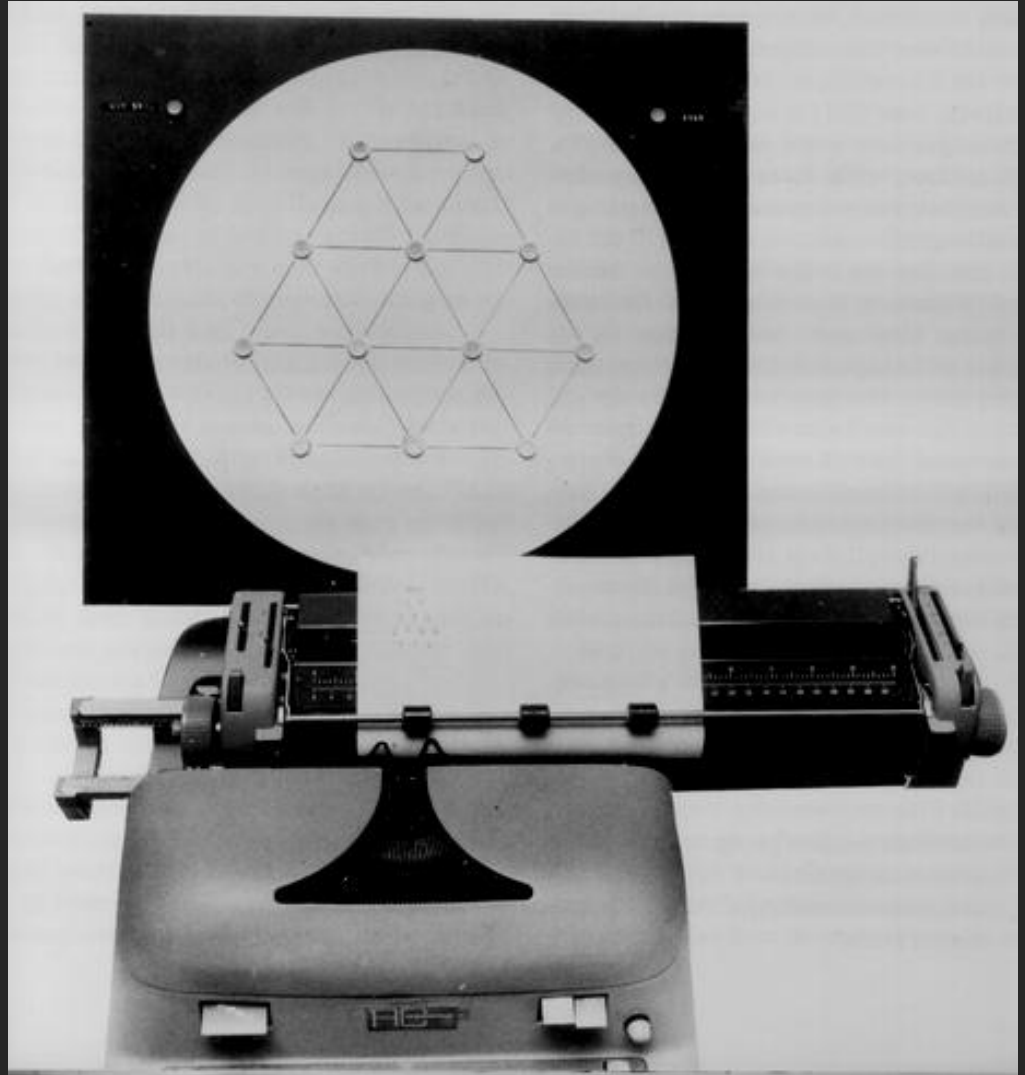
**Piet Hein's  
draft of the  
revised game**

**The  
revised  
game  
board  
in wood**

# The revised Nim computer game



The revised game board in wood

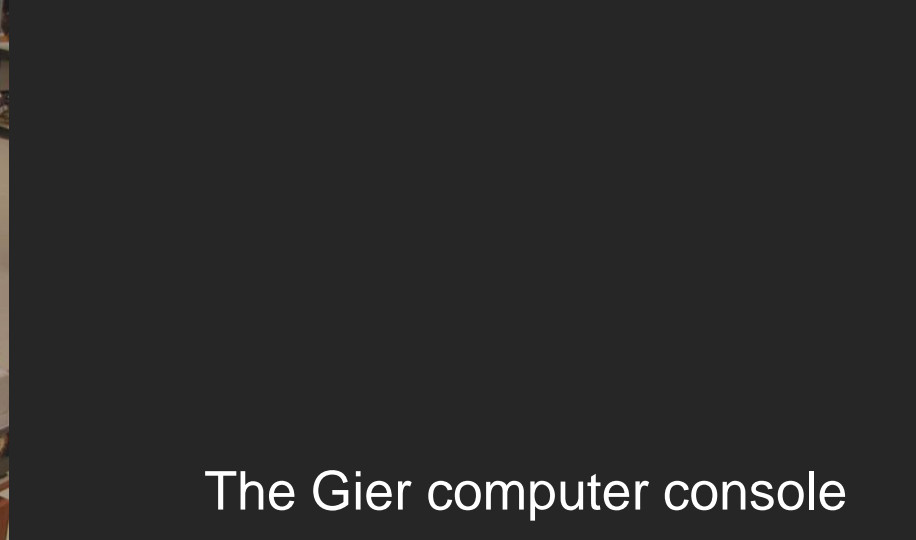


The Gier Nim computer game





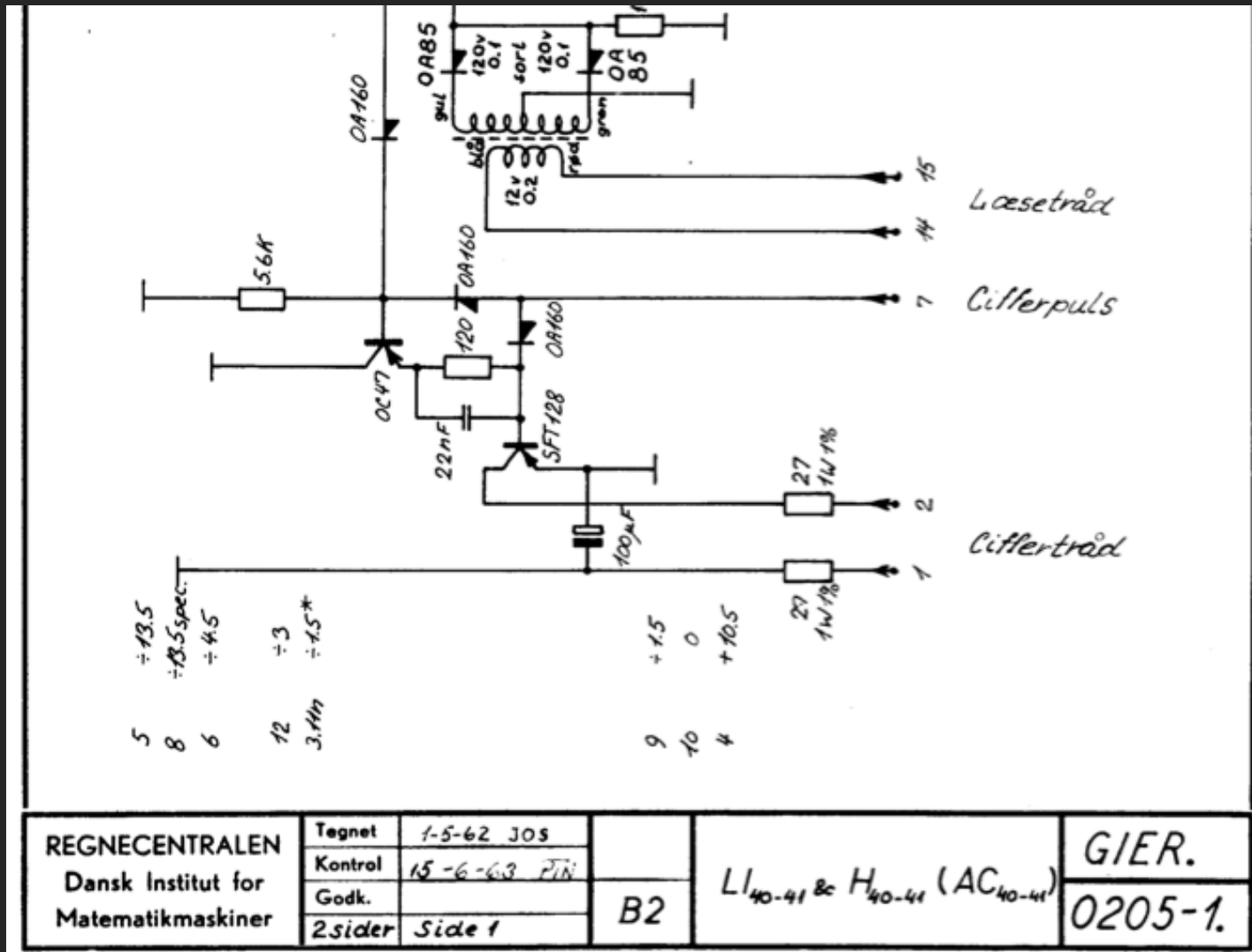
The Gier computer



The Gier computer console



# Making connections – soldering ?



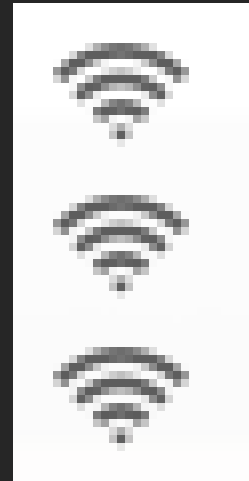
Gier circuit



# Making connections – soldering ?



USB connector



Wi-Fi



Bluetooth

Do you *really* appreciate your  
USB, Wi-Fi and Bluetooth connections ?

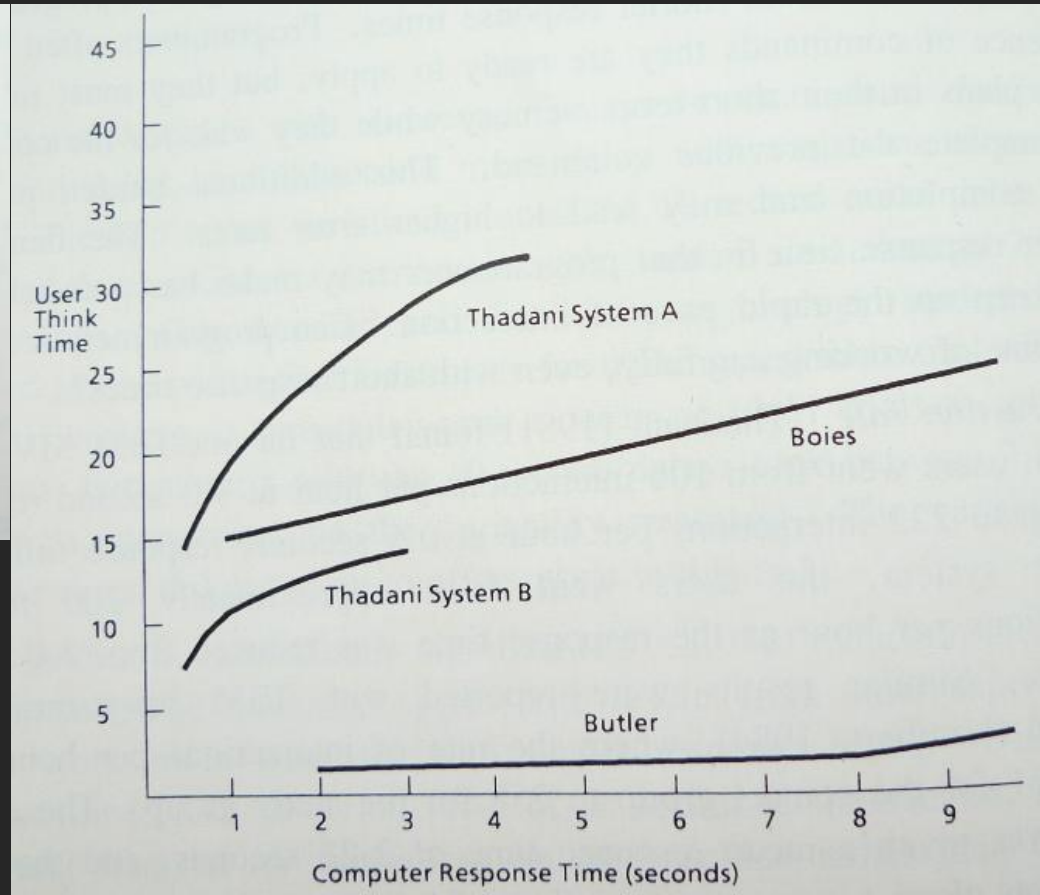
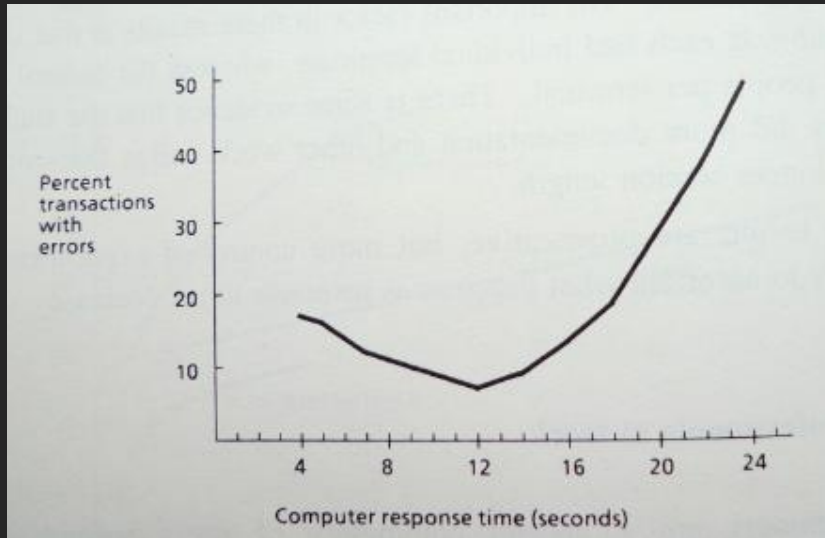
# Suggestion re. variable response times

Herbert A. Simon, R. K. Mellon Professor of  
Computer Sciences and Psychology

**Reflections on Time Sharing  
From a User's Point of View**



# Time sharing and variable response times



## Herbert Simon: Re. variable response times

- He suggested

In case of highly variable response times, the system should enforce a fixed response time of *5 minutes*, allowing the user to leave the terminal and do other work before resuming work with the system.

Suggestion re. variable response times

True or false ?

## Early computers

Some time in the last century you could hear this statement

*"My mother is a computer!"*

Was this statement meaningful?

Yes or No

My Mother Was a Computer  
DIGITAL SUBJECTS AND LITERARY TEXTS

N. Katherine Hayles

GA. ATG. ST. HAO  
FCKJBT DEKCT A  
AB. C  
TTT ATG  
ACT A AOC DE OCTAO  
CACC ATTA C C  
ATCCC T AT T  
RTS I AND  
KATAE CEE  
MILACT CCEA AC  
EATTCATATA  
RTS I AND  
/Computation  
TATACTTAATC  
TAKKAKKAKK  
RTS I AND  
FRAGMENTS  
COME TOGETHER  
|| LIME NICKLE TIDDI ||  
RIME SILD APART I AND I DE  
RTS I AND  
LINKING IN  
INTI DANKLE MELDES ||  
KTKACTCEA  
KAKCAGA  
ETACTT  
ACCATATAR  
HTATTTACTT  
KAKACTTTCTT  
TATCTKCC  
KAKACTT  
TTTTTCTCEA  
KAKATA CAME  
TKKGT  
ACCTO  
AKITUSAT  
KAKAKSTI  
TACTA  
CEATAT

# WHEN COMPUTERS WERE HUMAN



*David Alan Grier*

Yes - up to the mid-1950s the term *computer*  
meant a *person* doing calculations

Thank you for your attention!