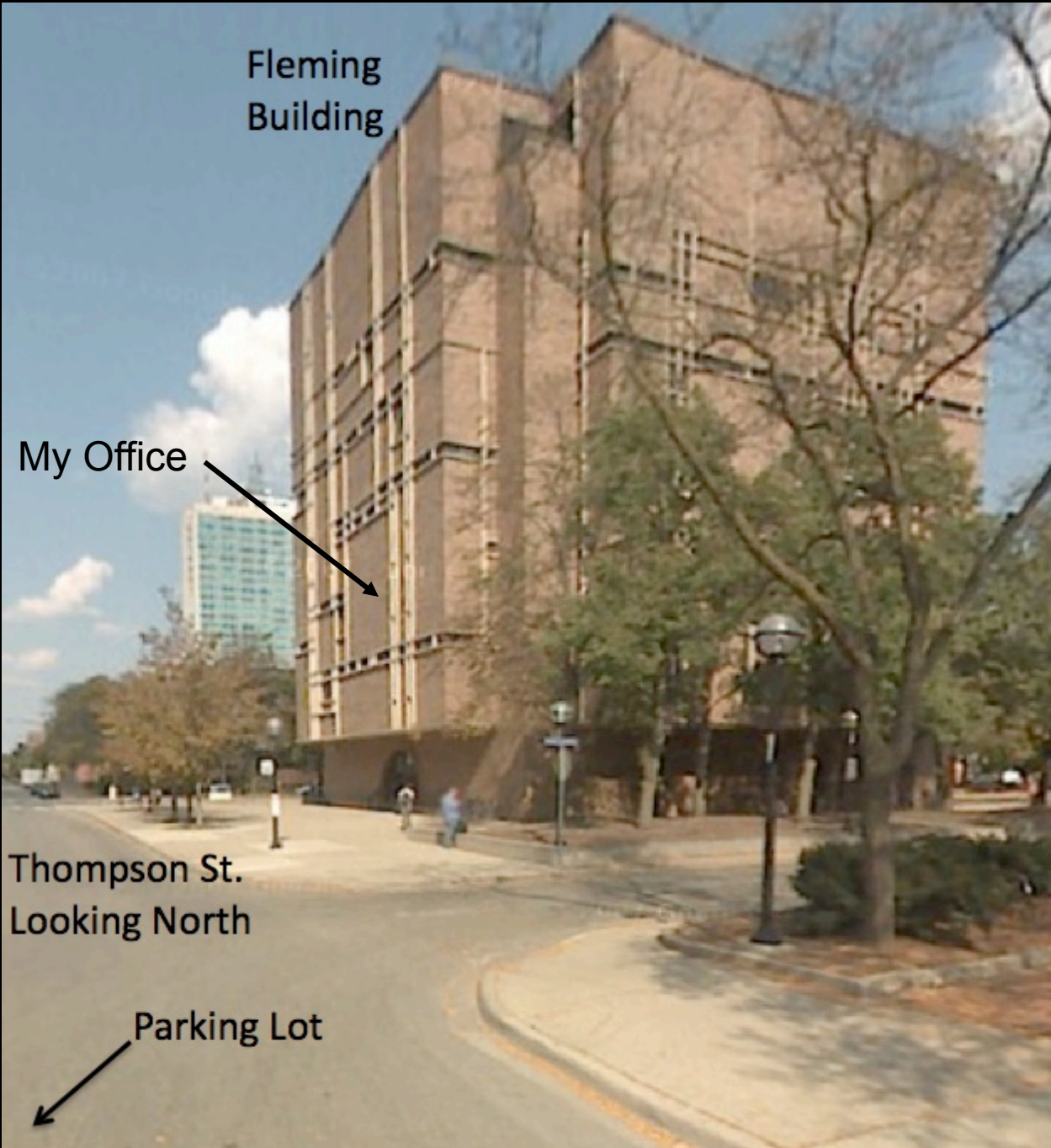


# Society as Software

John Leslie King

[jlking@umich.edu](mailto:jlking@umich.edu)





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Society as Software  
Software as Society

# Metaphysics





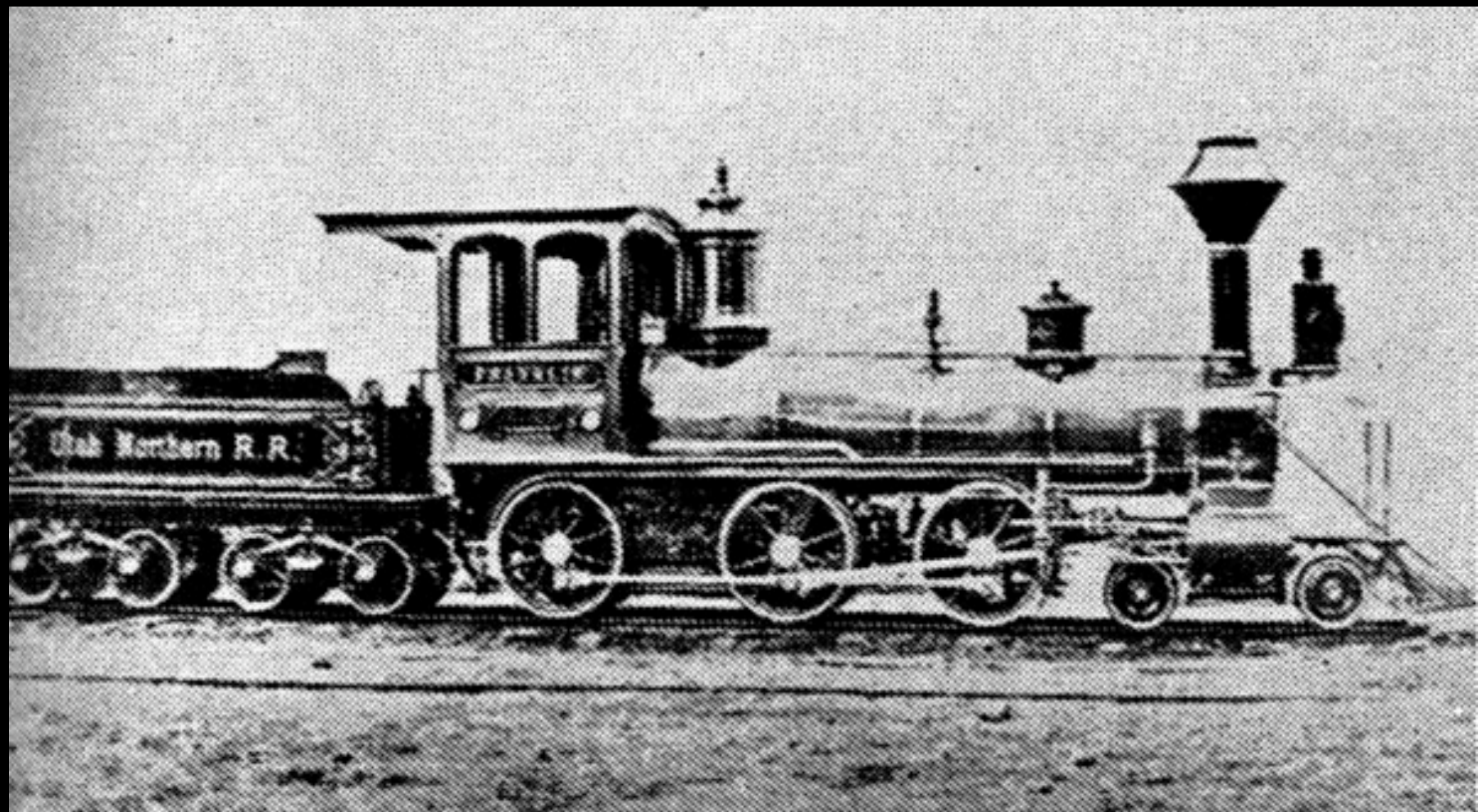


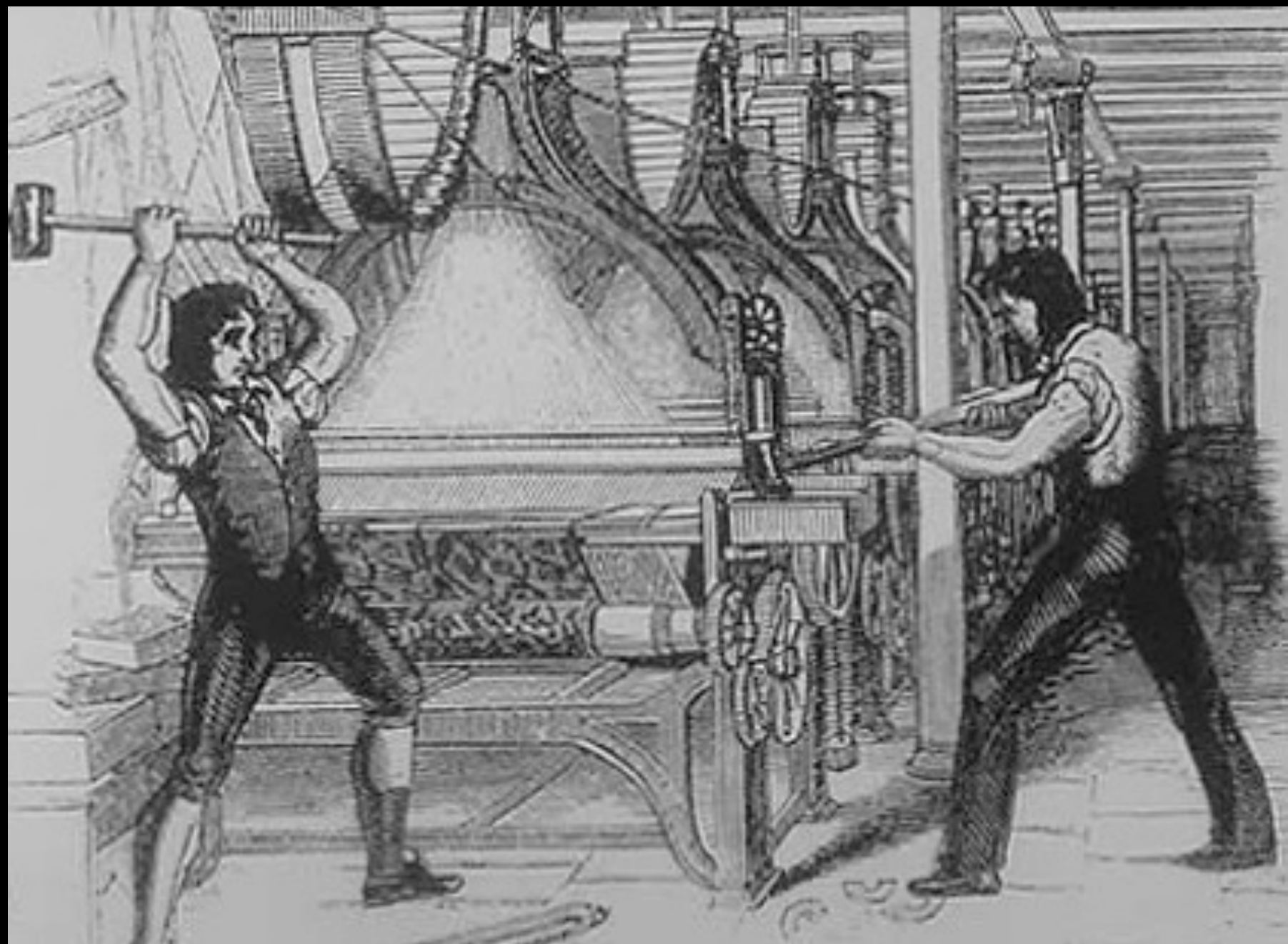


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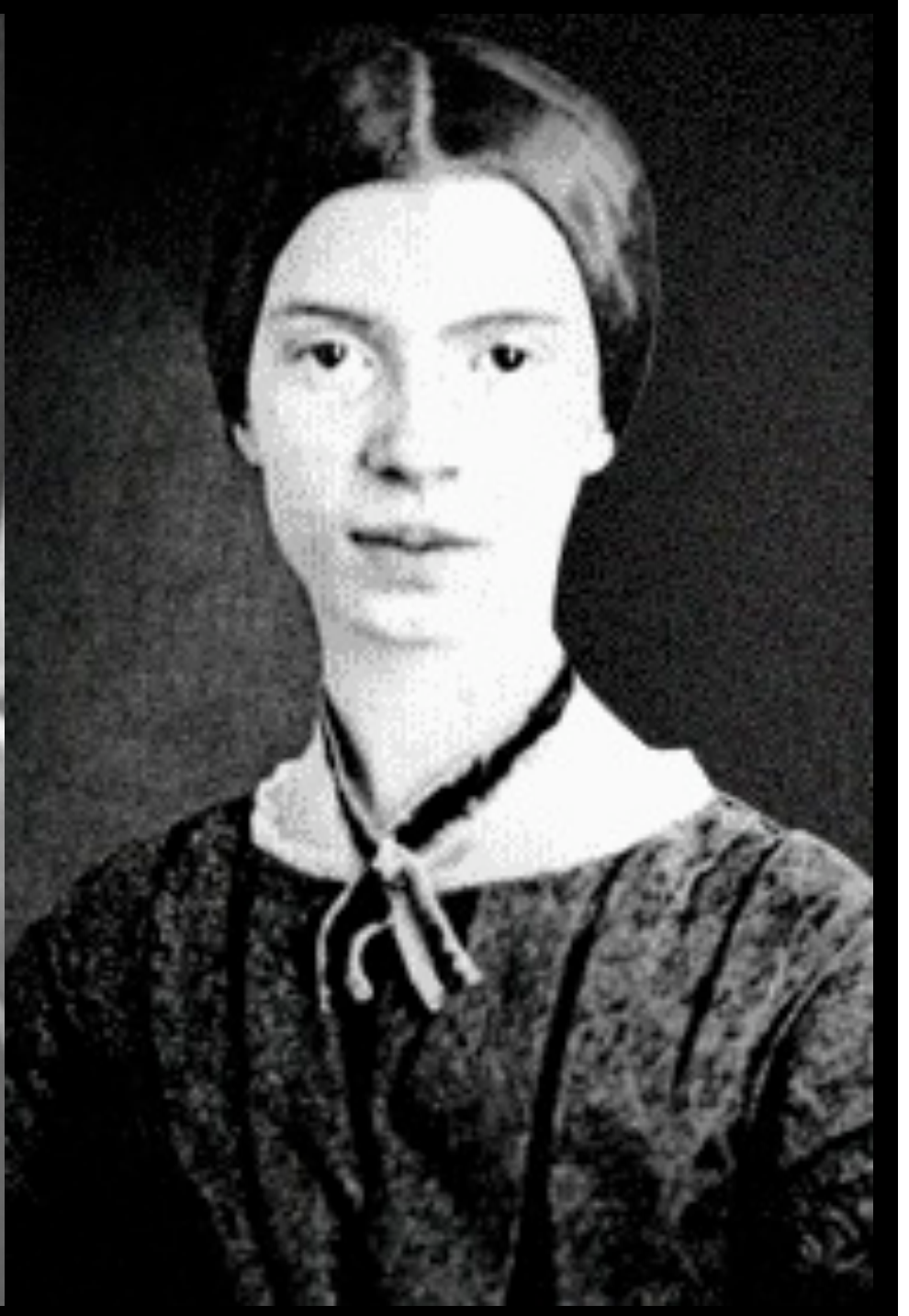






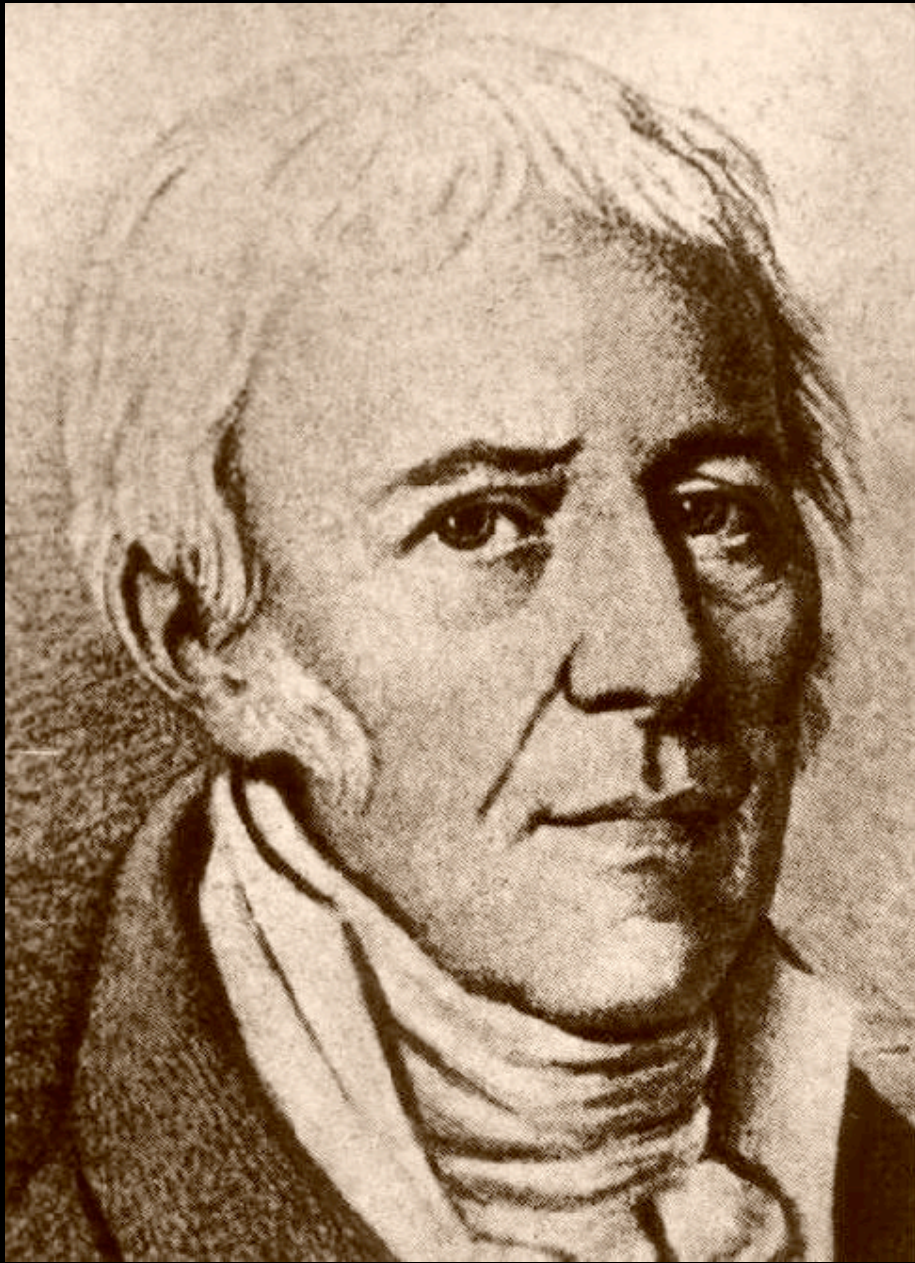


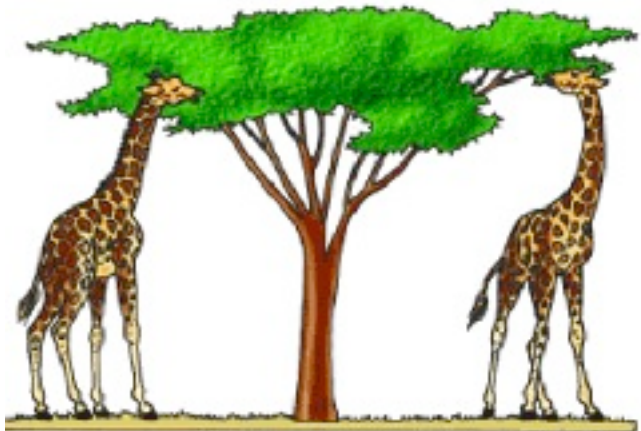
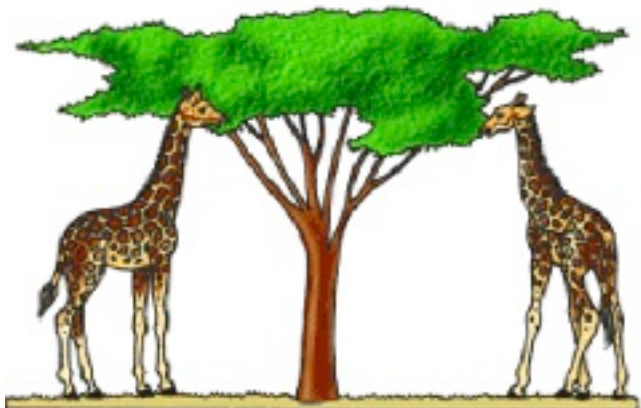
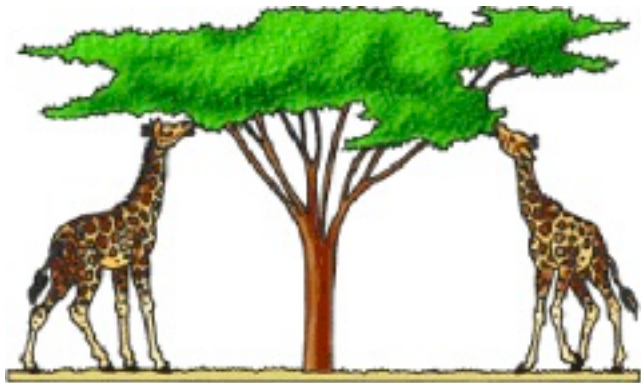












**The akiapola'au**  
forages for insects,  
often under bark



**The iiwi**  
feeds on nectar  
from ohia flowers



**The 'Apapane**  
feeds on insects  
and ohia nectar



**The Maui parrotbill**  
tears back bark in  
search of beetles



**The original species,**  
now extinct,  
probably ate  
insects and nectar



**The Nihoa finch**  
uses its heavy bill  
to crush seeds



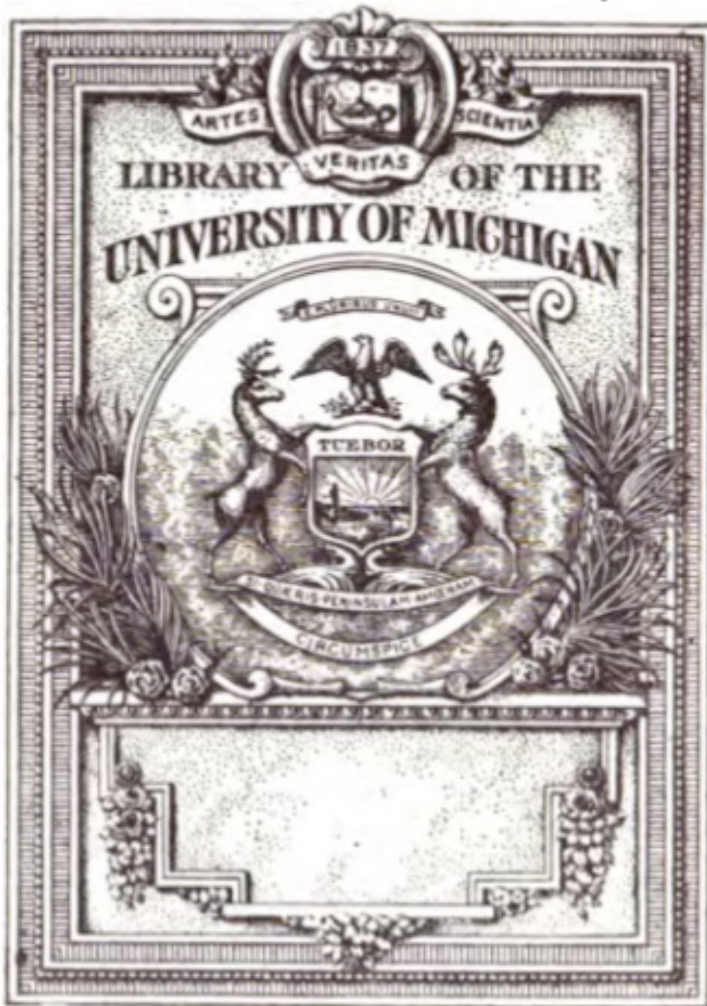
**The Amakihi**  
is a nectar-feeder,  
like the iiwi







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## Social Control

A Survey of the Foundations  
of Order

BY

EDWARD ALSWORTH ROSS, Ph.D.

PROFESSOR OF SOCIOLOGY IN THE UNIVERSITY  
OF NEBRASKA

New York

THE MACMILLAN COMPANY

LONDON: MACMILLAN & CO., Ltd.

1904

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# CHAPTER I

## THE PROBLEM

A CONDITION of order at the junction of crowded city thoroughfares implies primarily an absence of collisions between men or vehicles that interfere one with another. Order cannot be said to prevail among people going in the same direction at the same pace, because there is no interference. It does not exist when persons are constantly colliding one with another. But when all who meet or overtake one another in crowded ways take the time and pains needed to avoid collision, the throng is *orderly*. Now, at the bottom of the notion of social order lies the same idea. The members of an orderly community do not go out of their way to aggress upon one another. Moreover, whenever their pursuits interfere they make the adjustment necessary to escape collision, and make it according to some conventional rule. If the weaker of two hunters that have brought down the same stag avoids a fight by yielding up the game, there is peace, but no order. But if the dispute is settled according to the rule that "first struck" decides



## Social machinery...

The denser the traffic that is handled without confusion at a busy corner, the higher is the grade of order. Likewise, the more that the smooth running of social machinery implies the frequent breaking off or turning aside of individual activities, the more perfect is the social order. *Successful coöperation*, therefore, bespeaks a high grade of social order, inasmuch as each of the coöperators must unfold specific activities within precise limits, and the results therefrom are enjoyed or shared according to some recognized principle. *Hierarchical organization* is still more a test of orderliness, inasmuch as in the sharing of unlike burdens and the division of unequal benefits men are more apt to fall afoul of one another.



Now, it is the purpose of this inquiry to ascertain how men of the West-European breed are brought to live closely together, and to associate their efforts with that degree of harmony we see about us. Social order, even among the passive, unambitious Hindoos, presents a problem for solution. But it is a much more serious problem among the dolichocephalic blonds of the West. The restless, striving, doing Aryan, with his personal ambition, his lust for power, his longing to wreak himself, his willingness to turn the world upside down to get the fame, or the fortune, or the woman, he wants, is under no easy discipline. The existence of order among men of this daring and disobedient breed challenges explanation. Especially is this true of the European man in America or Australia. The same selective migrations that made the Teuton more self-assertive than the docile Slav or the quiescent Hindoo, have made the American more strong-willed and unmanageable than even the West-European.

Men of the West  
European breed...

the passive,  
unambitious Hindoos

The dolichocephalic  
blonds of the West...  
the relentless,  
striving, doing  
Aryan... daring and  
disobedient breed...  
self-assertive Teuton,  
docile Slav,  
quiescent Hindoo...



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## Cephalic index

From Wikipedia, the free encyclopedia

**Cephalic index** is the ratio of the maximum width of the **head** to its maximum length (i.e., in the horizontal plane, or front to back), sometimes multiplied by 100 for convenience. It was widely used by anthropologists in the early twentieth century to categorize human populations, and by [Carleton S. Coon](#) in the 1960s. Today the index is only used to describe individuals' appearances and for estimating the age of [fetuses](#) for legal and obstetrical reasons. The index is used to categorize animals, especially [dogs](#) and [cats](#).

### Contents [hide]

- 1 Cephalic index in human anthropology
- 2 Indices
- 3 Cephalic index in animal breeding
  - 3.1 Brachycephalic animals
  - 3.2 Mesocephalic animals
  - 3.3 Dolichocephalic animals
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- 6 References

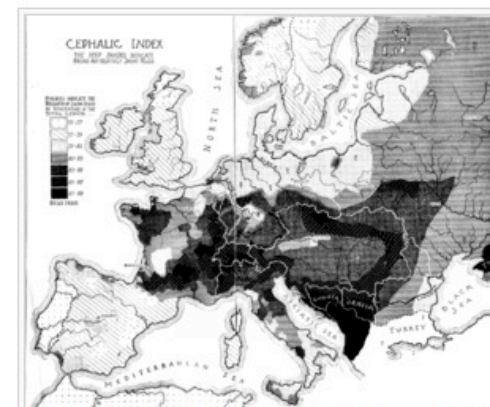
## Cephalic index in human anthropology

[\[edit\]](#)

The cephalic index was defined by [Swedish](#) professor of [anatomy](#) [Anders Retzius](#) (1796-1860) and first used in [physical anthropology](#) to classify ancient human remains found in Europe. The theory became closely associated with the development of racial anthropology in the 19th and early 20th century, when prehistorians attempted to use ancient remains to model population movements in terms of racial categories. Human populations were characterized as either **dolichocephalic** (long headed), **mesocephalic** (moderate headed), or **brachycephalic** (broad headed).

The usefulness of the cephalic index was questioned by [Giuseppe Sergi](#), who argued that cranial morphology provided a better means to model racial ancestry.<sup>[1]</sup> However [Franz Boas](#) studied the children of immigrants to the United States in 1910 to 1912, noting that the children's cephalic index differed significantly from their parents, implying that local environmental conditions had a significant impact on the development of head shape.<sup>[2]</sup> Boas argued that if craniofacial features were so malleable in a single generation, then the cephalic index was of little use for defining race and mapping ancestral populations. Scholars such as [Earnest A. Hooton](#) continued to argue that both environment and heredity were involved. Boas did not himself claim it was totally plastic.

In 2002 a paper by Sparks and Jantz re-evaluated some of Boas's original data using new statistical techniques and concluded that there was a "relatively high genetic component" of head shape.<sup>[3]</sup> Ralph Holloway of Columbia University argues that the new research raises questions about whether the variations in skull shape have "adaptive meaning and whether, in fact, normalizing selection might be at work on the trait, where both extremes, hyperdolichocephaly and hyperbrachycephaly, are at a slight selective disadvantage."<sup>[4]</sup>



William Z. Ripley's map of the "cephalic index" in Europe, from *The Races of Europe* (1899).

dolichocephalic – “long-headed”

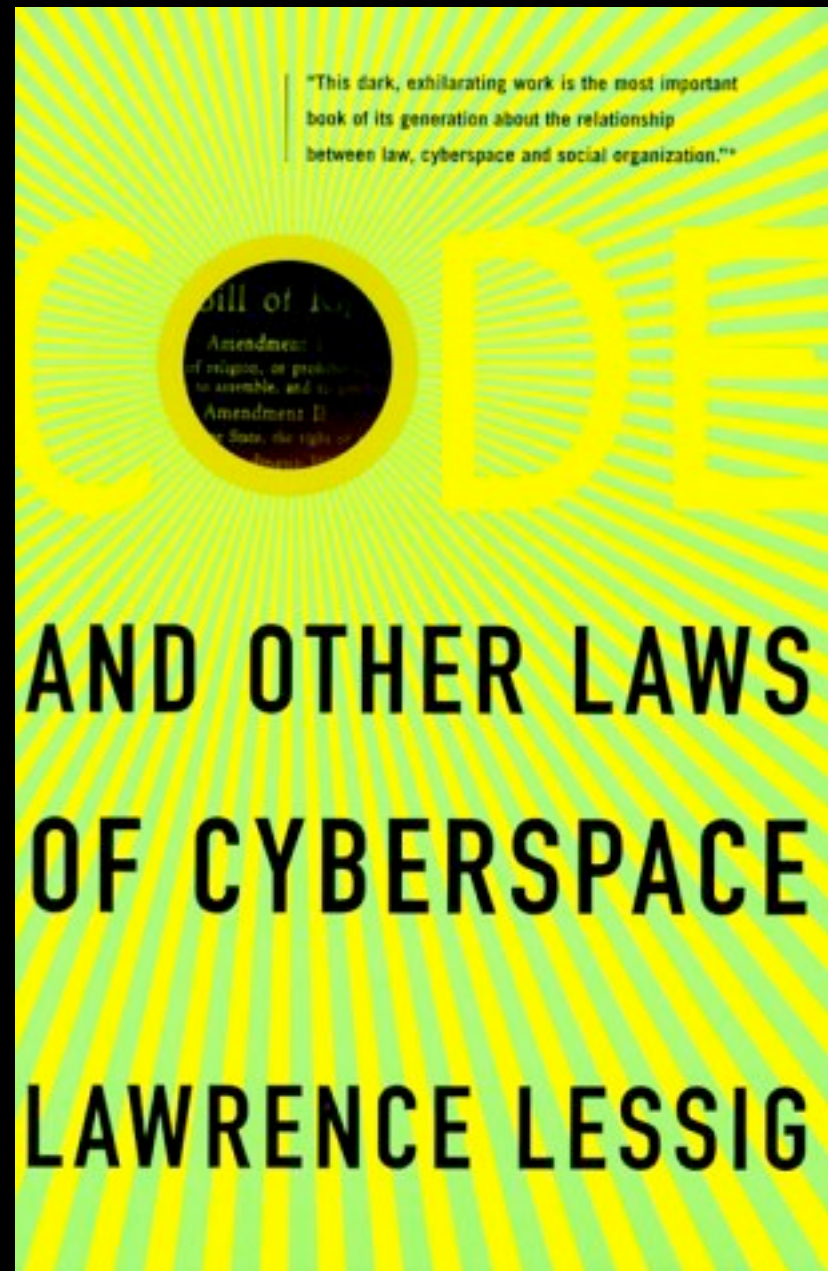


The fact is "society" is not a being, but just people in their collective capacity. The only welfare there is is the welfare of persons present or to come. A person secures his welfare partly by coöperation with his fellows, partly by free individual action. "Social welfare" is merely a synonym for the gain that comes through joint action.

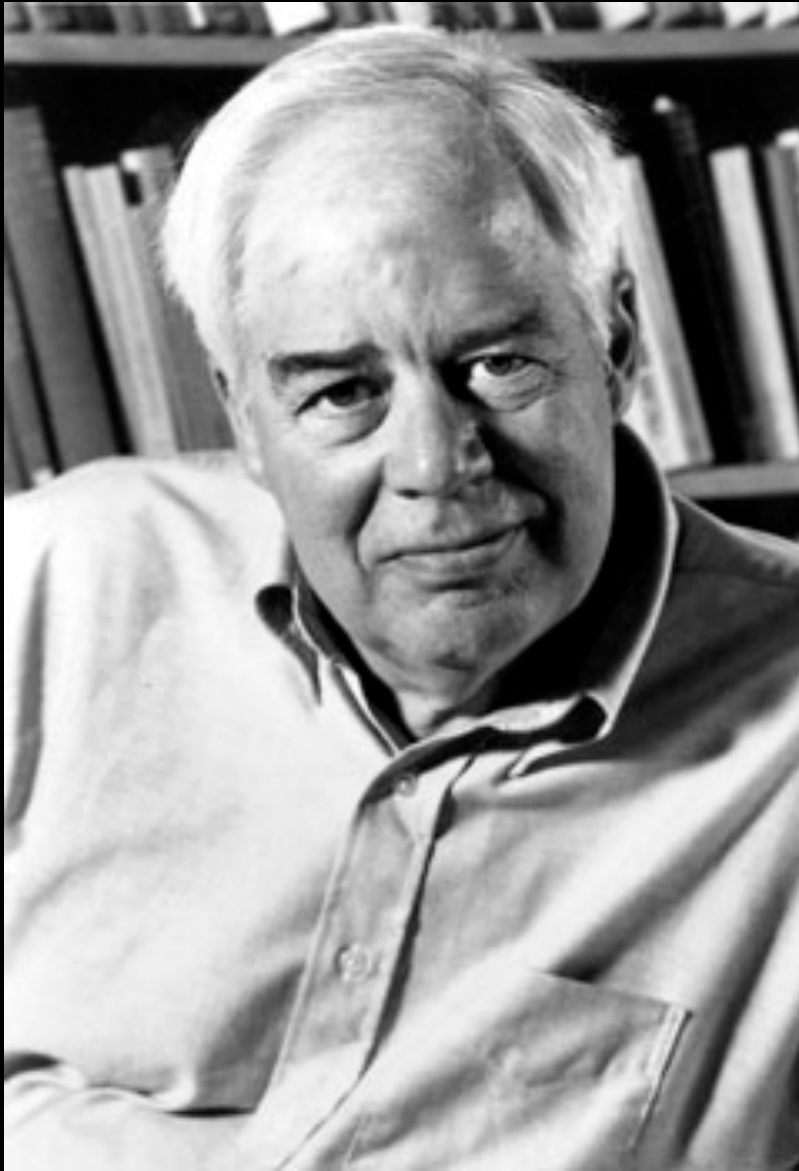
"I think we've been through a period where too many people have been given to understand that if they have a problem, it's the government's job to cope with it. 'I have a problem, I'll get a grant.' 'I'm homeless, the government must house me.' They're casting their problem on society. And, you know, **there is no such thing as society**. There are individual men and women, and there are families. And no government can do anything except through people, and people must look to themselves first. It's our duty to look after ourselves and then, also to look after our neighbour. People have got the entitlements too much in mind, without the obligations. There's no such thing as entitlement, unless someone has first met an obligation."

Prime minister Margaret Thatcher, talking to  
*Women's Own* magazine, October 31 1987





1999



Richard Rorty  
The Brain as Hardware,  
Culture as Software  
*Inquiry*, 47(3) June 2004,  
219-235

Neo-Carnapians vs. Neo-  
Wittgensteinians:  
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# Cultures and Organizations

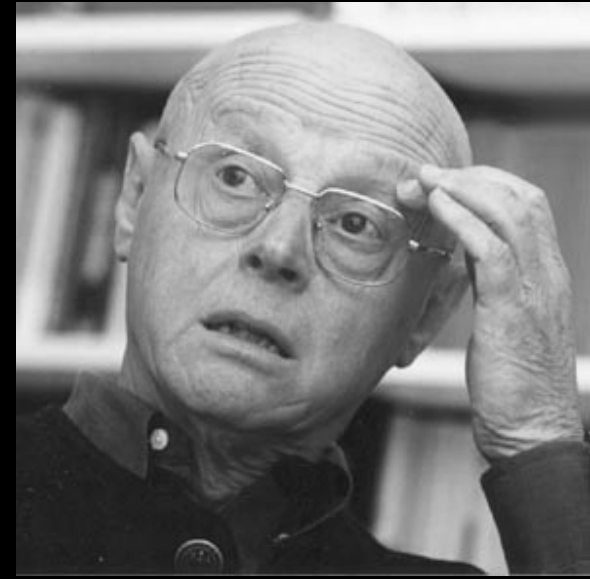
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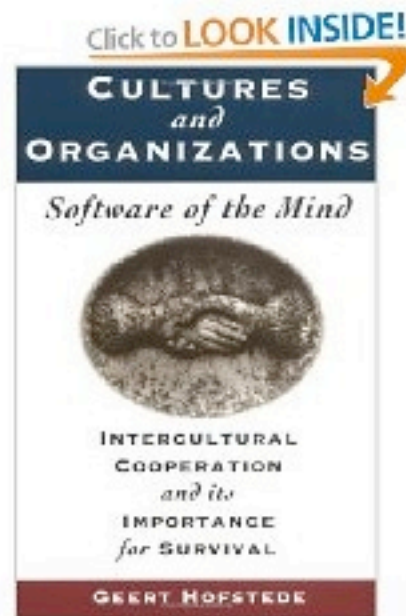
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2005



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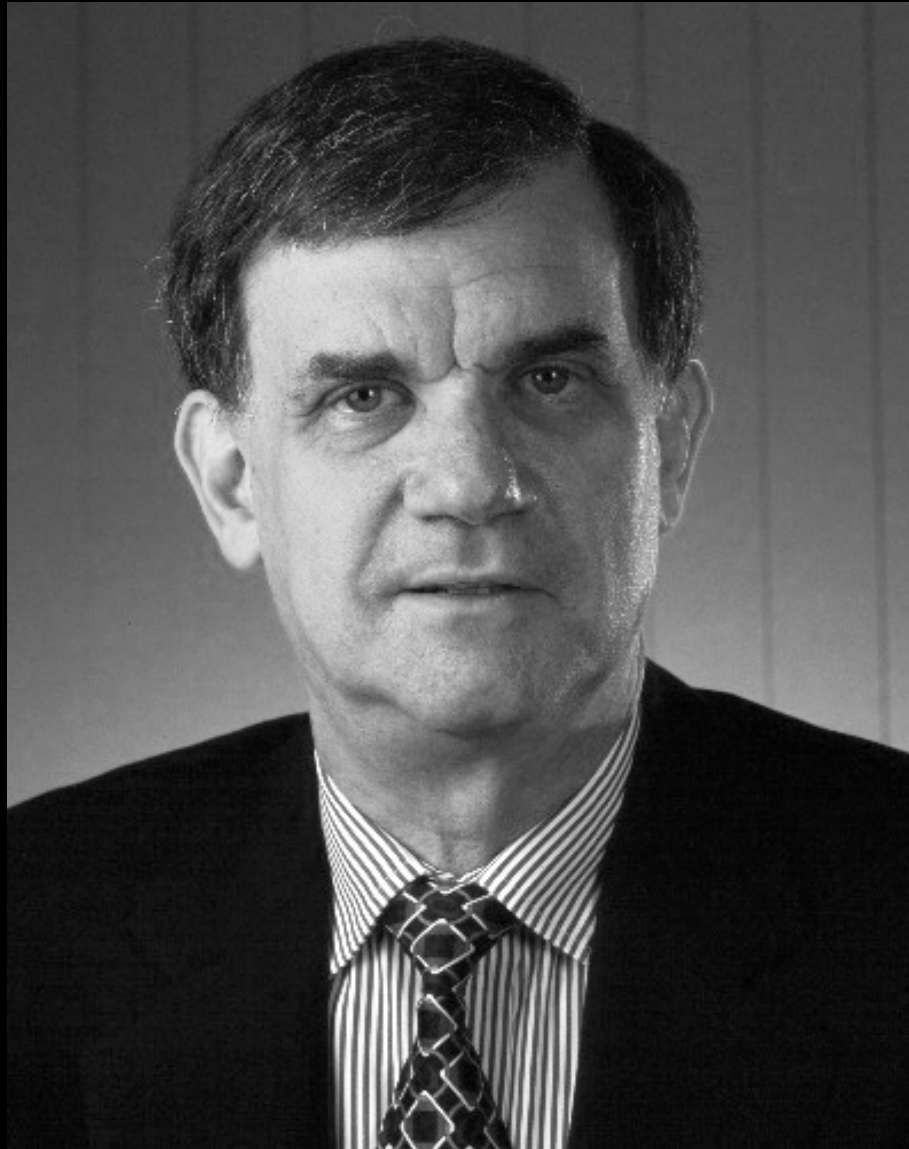
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# Computing: An Introduction to Procedures and Procedure Followers, 1975







Proceedings of the 9th  
International Conference  
on Software Engineering,  
Monterey CA, 1987

# SOFTWARE PROCESSES ARE SOFTWARE TOO

Leon Osterweil

University of Colorado Boulder, Colorado USA

## 1. The Nature of Process.

The major theme of this meeting is the exploration of the importance of .ul process as a vehicle for improving both the quality of software products and the the way in which we develop and evolve them. In beginning this exploration it seems important to spend at least a short time examining the nature of process and convincing ourselves that this is indeed a promising vehicle.

We shall take as our elementary notion of a process that it is a systematic approach to the creation of a product or the accomplishment of some task. We observe that this characterization describes the notion of process commonly used in operating systems-- namely that a process is a computational task executing on a single computing device. Our characterization is much broader, however, describing any mechanism used to carry out work or achieve a goal in an orderly way. Our processes need not even be executable on a computer.

It is important for us to recognize that the notion of process is a pervasive one in the realm of human activities and that

description defines a class or set of objects related to each other by virtue of the fact that they are all activities which follow the dictated behavior. We shall have reason to return to this point later in this presentation.

For now we should return to our consideration of the intuitive notion of process and study the important ramifications of the observations that 1) this notion is widespread and 2) exploitation of it is done very effectively by humans. Processes are used to effect generalized, indirect problem solving. The essence of the process exploitation paradigm seems to be that humans solve problems by creating process descriptions and then instantiating processes to solve individual problems. Rather than repetitively and directly solving individual instances of problems, humans prefer to create generalized solution specifications and make them available for instantiation (often by others) to solve individual problems directly.

One significant danger in this approach is that the process itself is a dynamic entity and the process description is a static entity. Further, the static process description is often constructed so as to specify a very wide and diverse collec-

The law is just software, John...

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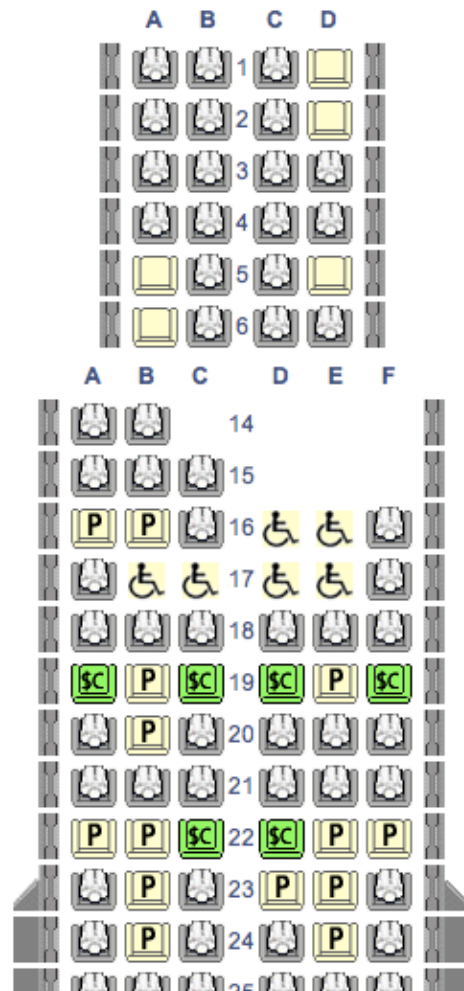
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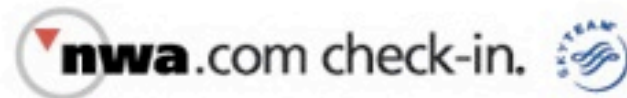
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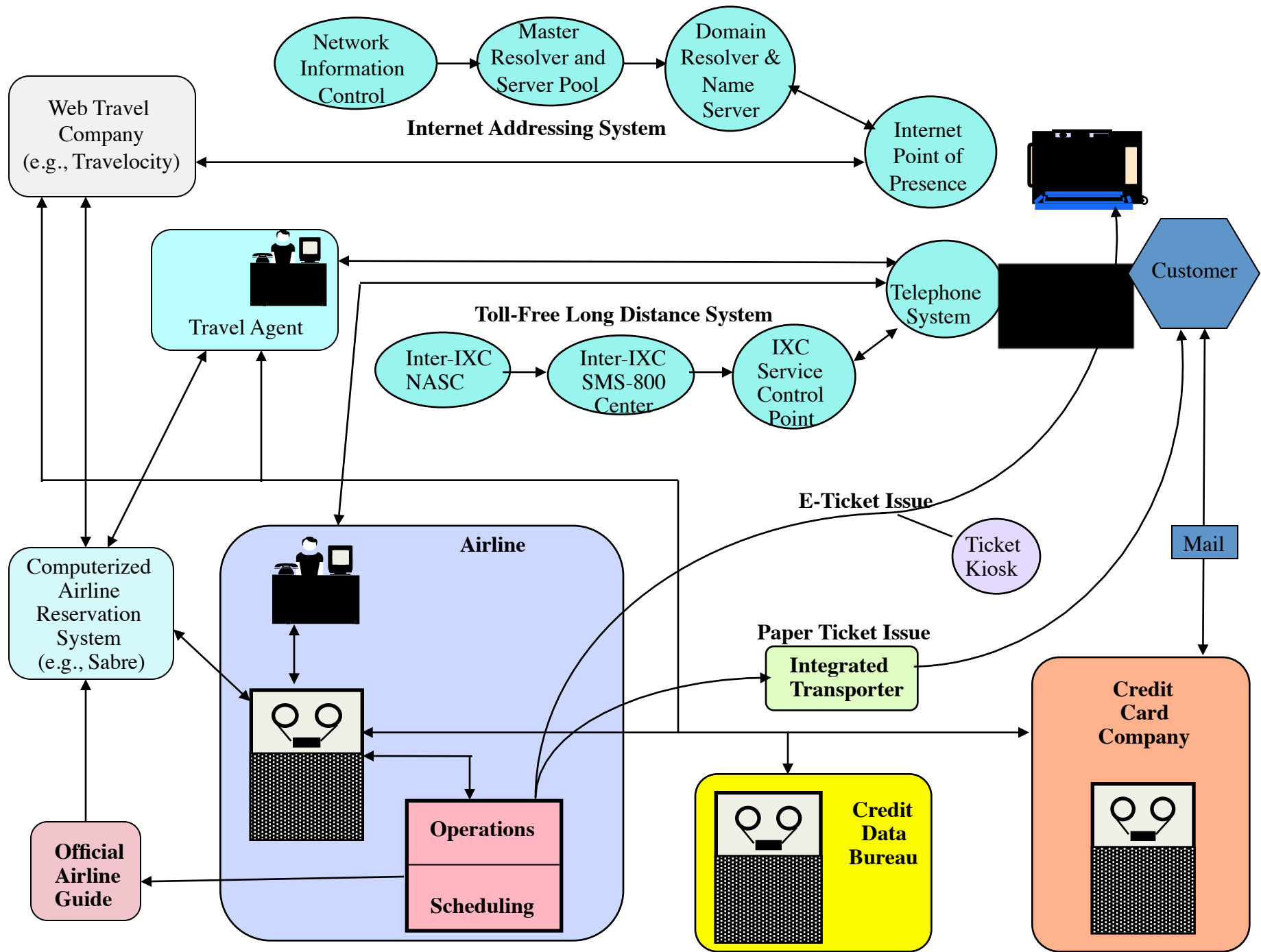
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