

This PDF includes a chapter from the following book:

# **The Constitution of Algorithms**

## **Ground-Truthing, Programming, Formulating**

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## Foreword

Geoffrey C. Bowker

Algorithms pervade our lives. They are political, cultural, and social facts that have become central to all parts of our existence over the past fifty years. Certainly, we had their forerunners before: endless checklists, safety protocols, and rules of conduct—each designed to take us out of ourselves and align our bodies, our selves with a bureaucratic or technical machine (in Foucault’s better term, a set “dispositifs techniques”). Bureaucracy makes us act like machines, algorithms seek to make us into machines.

A corollary is that if we want to do fundamental social science and envision new forms of political life we need to go where the action is. We need to get to know algorithms from the inside. They did not parachute down from another planet to invade us (much as it may feel like this): they are human, fallible creations. The difficulties here are that social scientists and political actors often don’t really understand the technical stakes, and symmetrically the computer scientists don’t really get the social stakes.

This is precisely why this book is so important. It is a foundational text for exploring algorithms as a new form of social actor. How do algorithms get constructed to be effective actors; how do humans get constructed so that they create algorithms which surpass human understanding? Jaton’s quest here has been fearless: go where the questions are, and locate the technical, social, and political issues on their home ground. As I read this book, I was constantly delighted as when reading a fine novel by not knowing what was going to come next (von Neumann architecture, tests for nascent computer engineers)—but by immediately feeling a sense of inevitability once the steps were taken.

I’ve been playing with a vision latterly of humans becoming progressively more irrelevant to the operation of our political economy: we do what we can but are increasingly interstitial. There is little doubt that we

are creating machines that are more intelligent than we are and algorithms that know us better than we do ourselves. That's just fine. But how much richer and more beautiful a world we will create if we suffuse our algorithms with our own deeply held values created over thousands of years?

This book is not just for computer scientists or for social studies of science scholars: it speaks to some of the fundamental questions of human existence in this epoch. It provides tools and concepts for us to co-engineer our world (our planetary system, our species, our computers).

Chapeau! Florian. Happy reading all.