Cartography from Code...?

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Cartography from Code...?

or

“how I learned to stop worrying and love coding in cartography”

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A change in my world

My tools once were these:
A change in my world

...but now look like this:
A change in my world

Computers gave me this at first:

SYMAP line printer output (1965, by Howard Fisher)
A change in my world

...but have been improving since:
A change in my world

...and now allow me to do really nifty things:


Students situate Eastern-European cities too far and Southern-European to close.

Click the buttons to see the differences between factual locations (and order) and how they were perceived by Geography students...

Works in modern browsers supporting HTML5 (not Explorer 8 and lower)

A change in my world
Both were constructed using software

this one was digitally drawn

this one was coded (programmed)
CARTOGRAPHY FROM CODE possible...?
CARTOGRAPHY FROM CODE
...or an oxymoron?
CARTOGRAPHY FROM CODE

Can coders be cartographers...

...or should cartographers become coders?
TRENDS

Technology influences cartography
TRENDS

Technology influences cartography

but

Cartography ≠ Technology
TRENDS

Technology influences cartography (or at least its tools)

Cartography ≠ Technology
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Cartography ≠ Technology

publishing maps:
manuscript → print → digital → web
TRENDS

Technology influences cartography
(or at least its tools)

Cartography ≠ Technology

drawing maps:
hand drawing → digital drawing
→ digital construction (coding)
TRENDS

Technology influences cartography (or at least its tools)

Cartography ≠ Technology

Cartography = visualising spatial data with a certain INTENT
Cartography = Communication
The right tool for the job

sketched manuscript ↔ coded website
“Everything Sings”
a narrative Atlas
Dennis Wood
So....

Can coders be cartographers ...?
So....

Can coders be cartographers ...?

Sure, just as engravers could be cartographers
Can coders be cartographers ...?

Sure, just as engravers could be cartographers

*Cartography is a state of mind*
So....

Can coders be cartographers ...

...or should cartographers become coders?
So....

Can coders be cartographers ...  
...or should cartographers become coders?

Sure, just as they could become engravers

It's just another tool!
A new role for the cartographer

providing

tools that implement cartographic intent
A new role for the cartographer

providing

cartographic knowledge for

tools that implement cartographic intent
A new role for the cartographer

providing
(cartographic knowledge for)
tools that implement cartographic intent:

“code that thinks like a cartographer”
A new role for the cartographer

providing
(cartographic knowledge for)
tools that implement cartographic intent:

“code that thinks like an atlas”
The Dutch National Atlas

www.nationaleatlas.nl
Atlas as part of a Spatial Data Infrastructure

a combination of two different worlds
conceptual change needed

sub-optimal combination of arbitrary map layers
conceptual change needed

sub-optimal combination of arbitrary map layers

integrated mapping of data layers
Architecture
- use data services (WFS) requests
- GeoJSON where possible
ATLAS utility services & basedata
Atlas Viewer:
- based on the Open Web Platform
- uses D3 library
Thank you!

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