

The Eleventh Thing

generalists, specialists, and
how life imitates the decathlon

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Emerging Technologies for the Enterprise
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About me

- Rubyist since 2000 (Pickaxe baby)
- Lead Developer, Cyrus Innovation
- Developer, author, trainer, speaker, event organizer
- Author of *The Well-Grounded Rubyist*
- Co-founder of Ruby Central
- Chief author of `scanf.rb` (standard library)

Today's talk

- Are we generalists and/or specialists?
- Do we get to decide?
- Whichever we are, is it OK?

A quasi-fractal field

- The world sees:
 - **specialist** (computer programmer)
- We see:
 - **generalist** (Ruby, JavaScript, CoffeeScript, C, (ba)sh, CSS, HTML, YAML, HAML, XML, SQL, NoSQL, LaTeX, vim, emacs, etc. etc.)

Moving in closer...

- We look at Ruby and see
 - syntax, GC, C extensions, JRuby API, object model, 1.9, 2.0, Rake, Rails, Sinatra, standard library, eight million gems, etc....

- Proliferation of tools is the norm
- Change is the norm
 - *pace* Donald Knuth
- Supersession is the norm
- It's a different landscape every day
 - except it's the same landscape, because change is the constant
 - the coefficients of "ABC now sux" and "XYZ rulez" don't change much

A first approximation

- Are we generalists and/or specialists?
 - Of necessity we are generalists
 - (though we can specialize)
- Do we get to decide?
 - Not really (see above)
- Whichever we are, is it OK?
 - Let's explore that question....

History is ambivalent about generalists

- +
 - Renaissance man
 - Polymath
 - All-rounder
 - Juggler

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- Renaissance man
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- -

- Dilettante
- Amateur
- Dabbler
- Jack-of-all-trades
(master of none)

Some introspection (and then I'll stop)

- Me:
 - developer, cellist, museum administrator, author, narrative theorist, college professor, technical trainer, speaker, event organizer, Linux user #7855...
 - degrees in Art History, German, Cinema Studies
 - Am I a Renaissance man, or a dilettante?!
 - Or...

A Decathlete!

The Decathlon








- The apotheosis of generalization
- Ten events over two days
 - Day 1: 100 meters, long jump, shotput, high jump, 400 meters
 - Day 2: 110 meter hurdles, discus, pole vault, javelin, 1500 meters
- Scoring based on points at various thresholds
 - Example: 1000 points for 18.4 meter shotput; 900 points for 16.79 meters
- World record: Ashton Eaton (USA), 9039 points

"It's not necessary to win any individual events in order to win the decathlon. Rather, it's more important for a decathlete to be consistently successful in each event."

<http://trackandfield.about.com/od/decathlon/p/Introdecathlon.htm>

Decathletes do not hold world records
in individual events....

World records (WR) compared to decathlon bests (DB)

Event	WR-World record/ DB-Decathlon best	Athlete	Record	Score	Difference	Ref
100 m	WR	 Usain Bolt (JAM)	9.58 s	1,202	158	
	DB	 Ashton Eaton (USA)	10.21 s	1,044	6.58%	[13]
Long jump	WR	 Mike Powell (USA)	8.95 m	1,312	192	
	DB	 Ashton Eaton (USA)	8.23 m	1,120	8.04%	[14]
Shot put	WR	 Randy Barnes (USA)	23.12 m	1,295	247	
	DB	 Edy Hubacher (SUI)	19.17 m	1,048	17.08%	
High jump	WR	 Javier Sotomayor (CUB)	2.45 m	1,244	183	
	DB	 Rolf Bellschmidt (GDR) &  Christian Schenk (GDR)	2.27 m	1,061	7.35%	
400 m	WR	 Michael Johnson (USA)	43.18 s	1,156	131	
	DB	 Bill Toomey (USA) &  Ashton Eaton (USA) ^[15]	45.68 s	1,025	5.79%	[16]
110 m hurdles	WR	 Aries Merritt (USA)	12.80 s	1,135	91	
	DB	 Ashton Eaton (USA)	13.35 s	1,044	4.66%	
Discus throw	WR	 Jürgen Schult (GDR)	74.08 m	1,383	390	
	DB	 Bryan Clay (USA)	55.87 m	993	24.58%	
Pole vault	WR	 Sergey Bubka (UKR)	6.14 m	1,277	125	
	DB	 Tim Lobinger (GER)	5.76 m	1,152	6.19%	
Javelin throw	WR	 Jan Železný (CZE)	98.48 m	1,331	291	
	DB	 Peter Blank (FRG)	79.80 m	1,040	18.80%	
1500 m	WR	 Hicham El Guerrouj (MAR)	3 m 26.00 s	1,218	255	
	DB	 Robert Baker (USA)	3 m 58.70 s	963	15.87%	
Total	World record				12,553	2,063
	Decathlon				10,485	16.43%

http://en.wikipedia.org/wiki/Decathlon#Decathlon_bests

But...

The Olympic decathlon champion
is traditionally referred to as
"World's Greatest Athlete."

Decathletes are generalists.

Except...

The decathlon **itself** is an event in which one can specialize.

From ten unconnected things, there emerges

The Eleventh Thing

Which pertains to (emerging) technologies...how?

- We use a lot of technologies where we aren't "world record holders"
- We want to feel that it adds up to something
 - an "eleventh thing"
 - we want to be technological decathletes

Decathletism (decathleticism?) is an emergent quality

- in the Decathlon
- in our field
- in our lives

- This is not
 - ... a rationale for mediocrity or low effort
 - ... a pronouncement that there's no such thing as specialization
- This is
 - ... an affirmation of the (potential) value of generalization
 - an exhortation to trust in the "eleventh thing" that emerges from the totality of the first "ten"

Think polymath

- not dilettante!

Second pass

- We have to be generalists to make our way in the field
- But we can make a virtue of necessity
- It's an attitude adjustment as much as anything
 - don't think of yourself as scattered or spread too thin
 - look at the totality of what you achieve, and allow that totality, itself, to "count"
- Oh, and specialize when and if it interests you to do so

Thank you

- Questions?
- Comments?

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