



“The Planning Method”

Urban Transportation Planning
MIT Course 1.252j/11.540j
Fall 2016

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Why are there several guest lecturers, in addition to me and Kelly here?

- we are all smarter together
- Noone has spoken to god recently (or at least, he hasn't spoken back)

Course overview



- **Weekly schedule**

- Thursdays: send in weekly reading response memo
- Fridays: class, 2-5pm
- Mondays: 150 word summary of what you got from previous class
- (occasional) Tuesdays, 5-7pm, including final Tuesday feedback session on the course

- **Class Presentations**

- **Walking tours**

- Two three hour walks

Assignments

- 0. Introductory memo (short write-up)
- 1. Counting and observing at key intersections (group memo)
- 2. Redesigning Mass Ave. (individual memo)
- 3. With the Everett casino approved, how should transportation planners respond? (group memo)
- 4. Propose a transportation plan based on assignment 3 assessment (individual memo)

Why Boston

– *“Think globally, act locally”*





Pattern Breaks

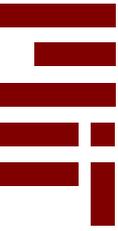


Japanese Proverb

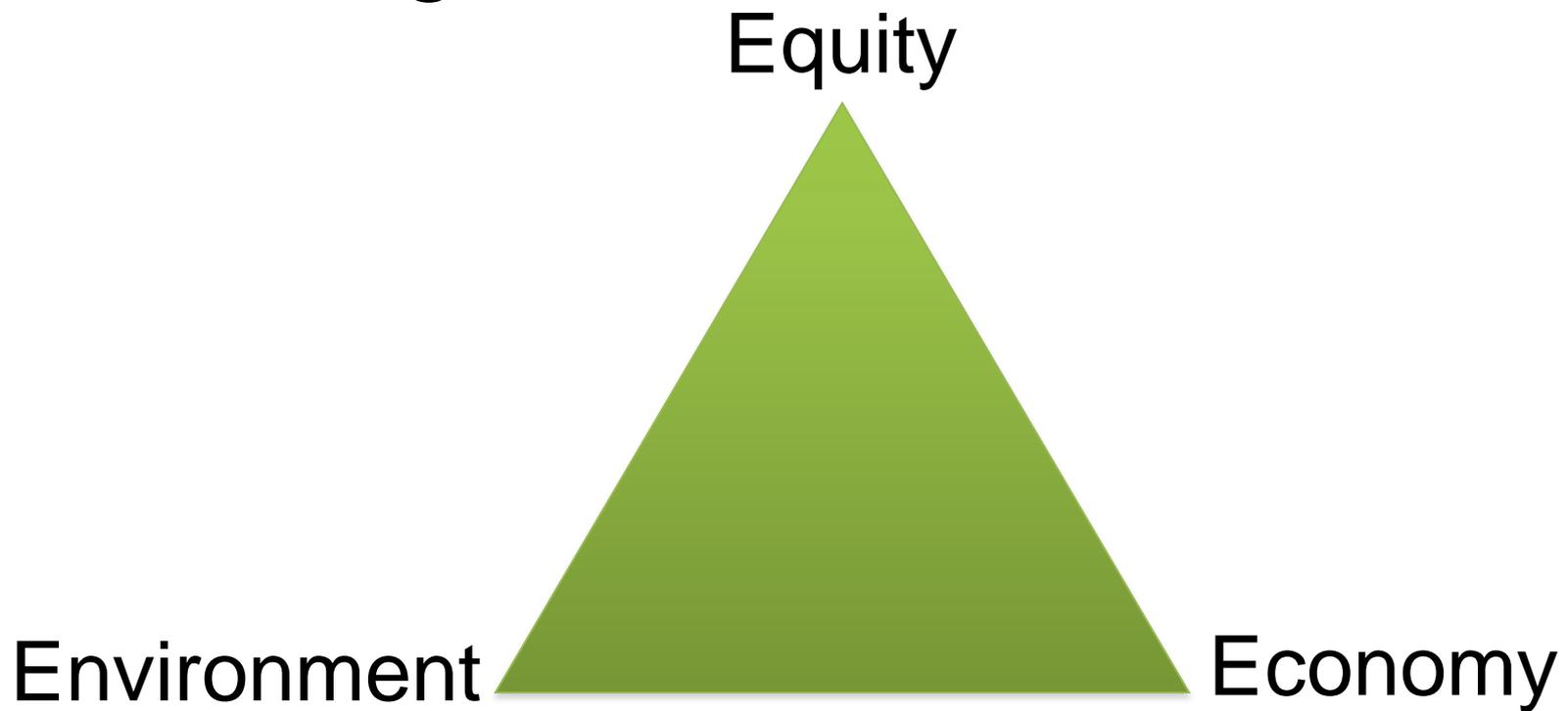
Tasaku was a lowly stonecutter. Each day the sound of his hammer and chisel rang out as he chipped away at the foot of the mountain. He hewed the blocks of stone that formed the great temples and palaces.

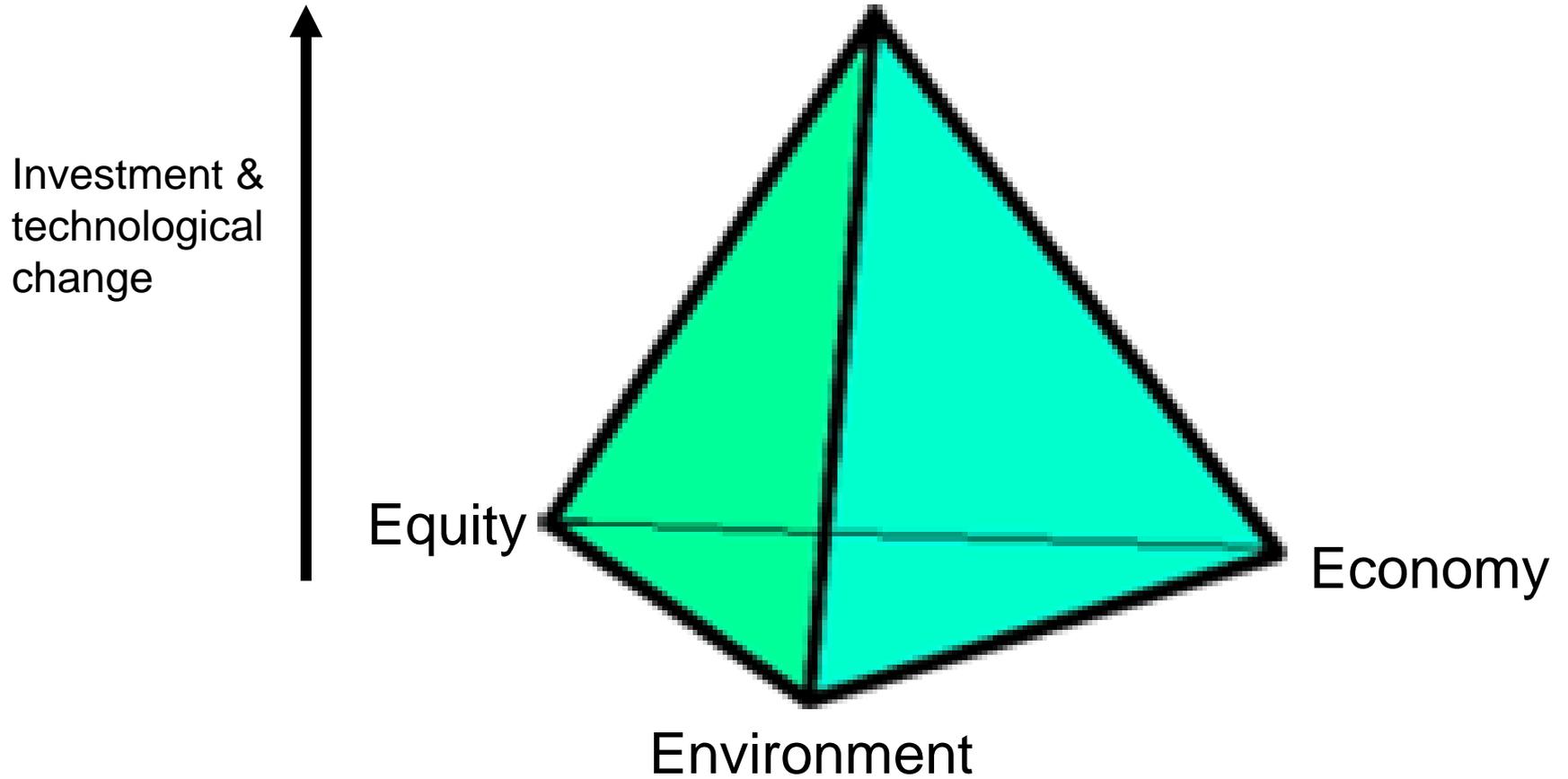


Culture eats policy for breakfast



3E Triangle

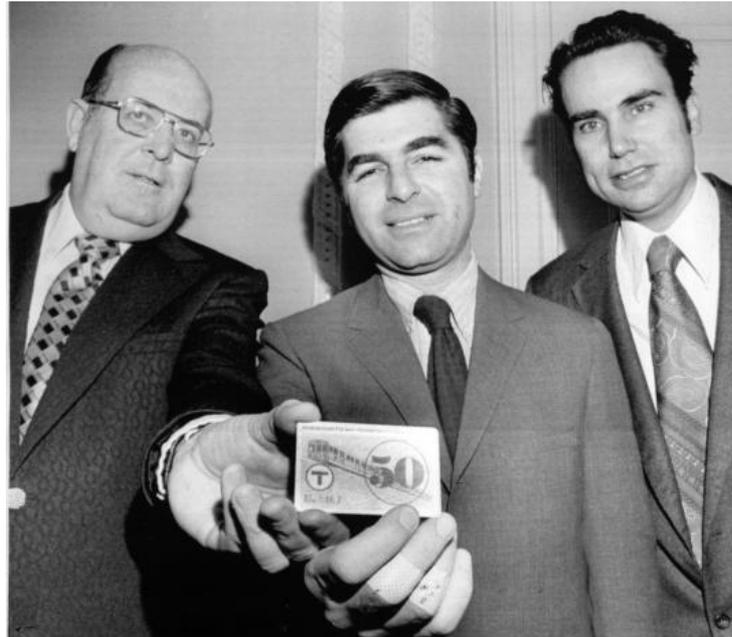






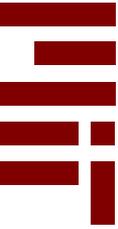
Incremental Change vs. Big Bang

– *causality v. mitigation*



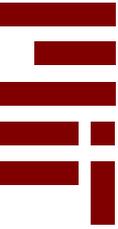
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["Fred Salvucci 'Attacking' the Central Artery"](#) removed due to copyright restrictions.



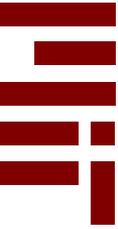
Alternative Interpretations: Planning as...

1. ... predicting the future to accommodate demand
2. ... imagining a different future and developing an strategy to get there
3. ... as infrastructure planning
4. ... a system of public infrastructure and mixture of public and private vehicles
5. ... as service planning
6. ... as mobility planning
7. ... as accessibility planning



Alternative Interpretations: Planning as...

8. ...as providing choices for individuals
9. ... as providing information for individuals to conform their plans to a master plan
- 10.... as institutional planning
- 11.... as financially constrained planning
- 12.... as economic planning
- 13.... as urban design
- 14.... as environmental planning



Alternative Interpretations: Planning as...

15.... advocacy planning

16.... as implementation of legislation

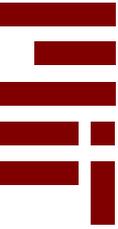
17.... as a bureaucratic process

18.... as interactive process with “the community” (Who is included? Who is excluded?)

19.... as institutional negotiation

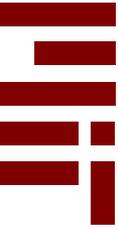
20.... as decision support (Who are the decision makers?)

21.... as support for city planning



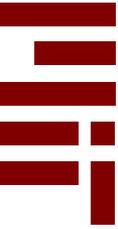
The Changing Concepts of Transportation Planning

- Bottleneck modification
- Highway system function; benefit/cost
- Transportation system function; benefit/cost
- Inclusion of “external” impacts; full costs/benefits
- Inclusion of “external impacts with mitigation
- Land use impacts of transportation



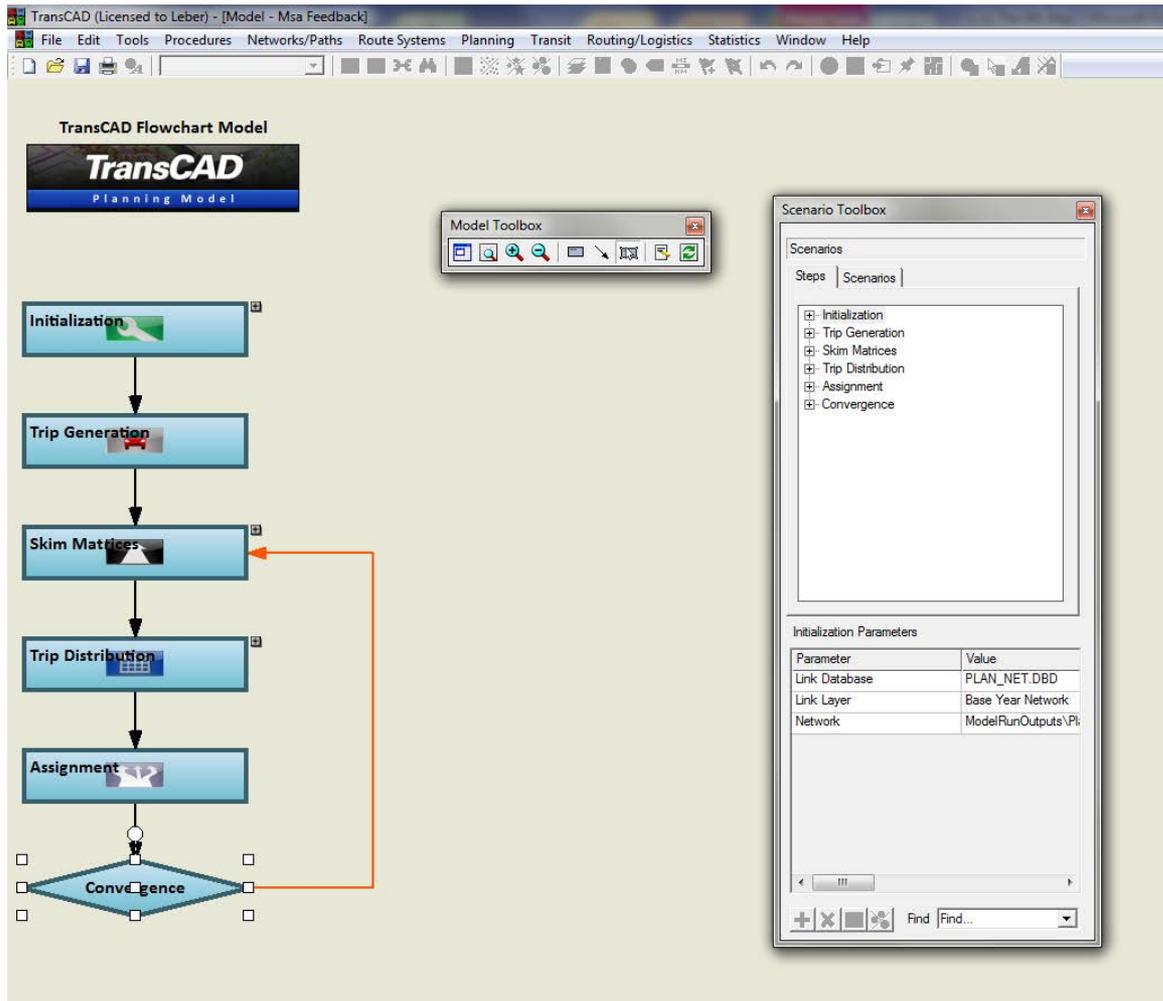
It is essential to be not only directionally correct, but also dimensionally correct

You can't manage what you don't measure...but what if you measure wrong?

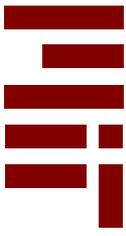


Point of View	Measure
System Impact	<ul style="list-style-type: none">• Capacity; travel time
Operator	<ul style="list-style-type: none">• Vehicle hours;• cost/vehicle hour
Customer	<ul style="list-style-type: none">• Mobility: travel time; comfort; waiting time; congestion• Accessibility: options within given travel time
Land Developer	<ul style="list-style-type: none">• Accessibility• Cost of land• Parking
Government	<ul style="list-style-type: none">• Operating subsidy• Capital cost• Tax yield

The traditional 4-Step Model



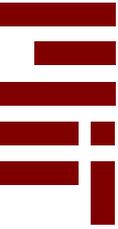
Courtesy of Caliper Corporation. Used with permission.



The Planning Method:

Why we need ~~15, 18,~~ **19** Steps, not just 4?

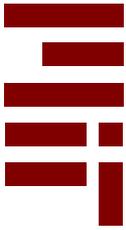
1. Decide who you are, and what your relationship is to the other actors
2. Scan the environment, review history, identify trends, project future conditions
3. Identify relevant actors, primary roles and interests and culture
4. Define your communication mechanism(s)
5. Define problem(s)
6. Identify opportunities
7. Develop solution(s)
8. Consider implementation
9. Consider operation and maintenance of facilities, services
10. Who are the apparent decision makers?
11. Predict outcomes, benefits, costs, impacts (4-step model)
12. Consider finance
13. Evaluate alternatives
14. Develop vision
15. Choose course of action
16. Build constituency, consolidate allies, attempt to convert opponents
17. Implement
18. Operate and maintain
19. Ex-post review



Transport Planning

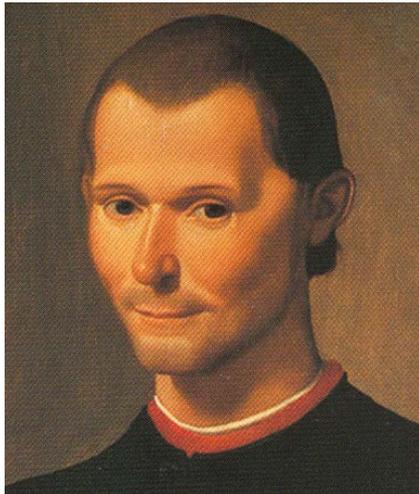
Figure 1-1: Steps in an urban transportation planning process from Meyer, Michael and Eric Miller. [*Urban Transportation Planning*](#). McGraw-Hill (2000) removed due to copyright restrictions.

Prevent pain, optimize future gain associated with investment



– Machiavelli

"And it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new." (The Prince)



"Portrait of Niccolò Machiavelli" by Santi di Tito.
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