

*Selections of -*  
**Apple's iPhone: An Application  
of Systematic Innovation (SI)  
for Growth Strategy**

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iPhone - Systematic Innovation (SI) Analysis

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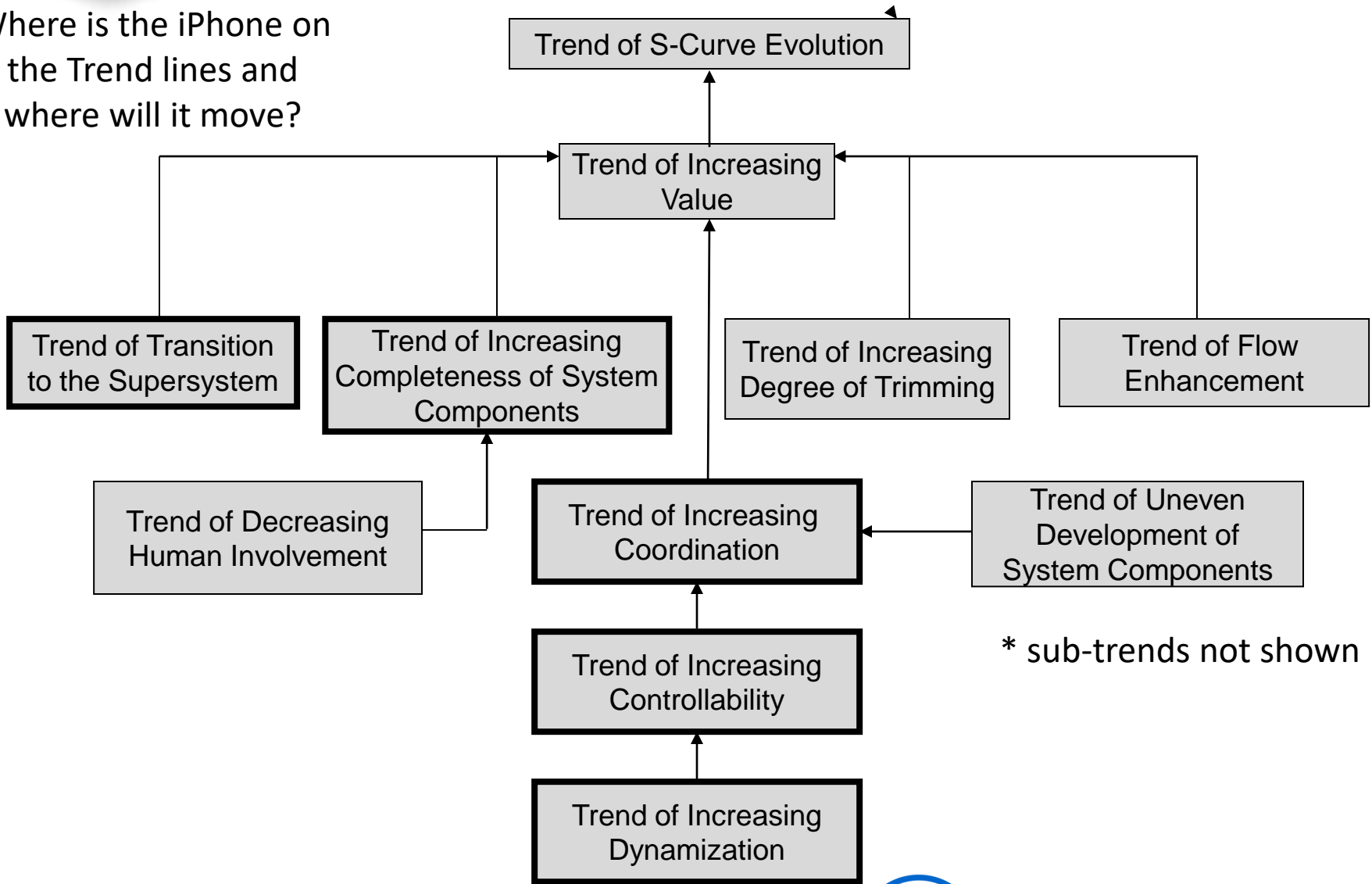
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# Trends of Engineering System Evolution\*

Where is the iPhone on the Trend lines and where will it move?



\* sub-trends not shown

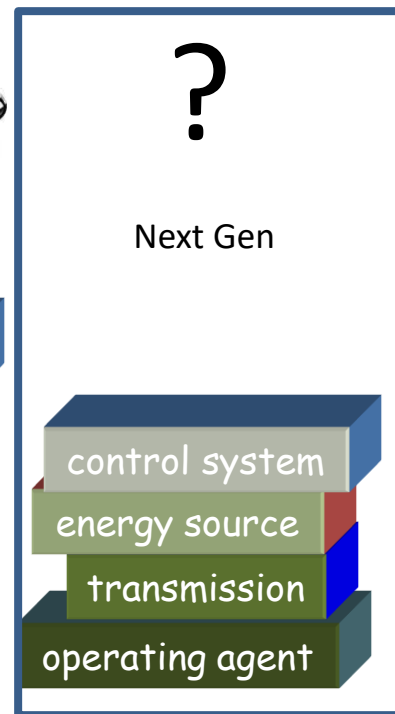
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# Trend of Increasing System Completeness

As an eng. system evolves the system becomes more complete.



Megaphone

Car Phone

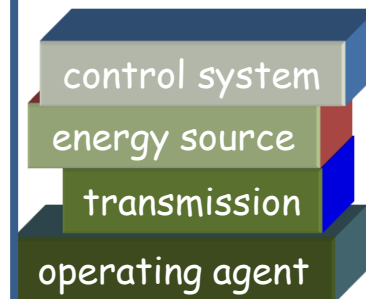
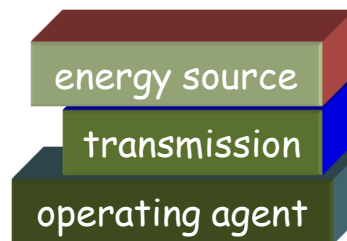
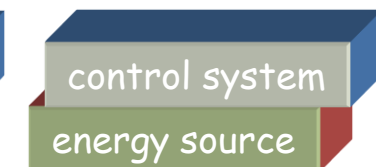
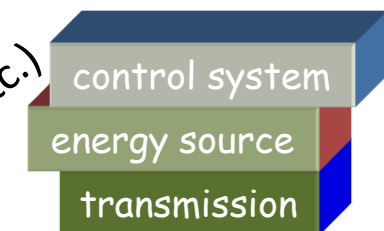
iPhone

Next Gen

Support System  
(car, human, etc.)

Phone

time



Increasing System Completeness

Some of the control systems is already in the iPhone. How would the iPhone look and act if all (or more) of its control system was internal to the phone (i.e., no user control, dialing or texting)?

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# Trend of Transition to the Supersystem: Subtrend 4 – Increased Integrated Systems

As an eng. system evolves other system increasingly integrate with it.

Phone



Mon-System

Phone + Camera



Bi-System

Phone + Camera + Music



Poly-System

iPhone (Phone + Camera + Music + Web + GPS)



Poly + - System

?

Next Gen

Super Poly - System

time

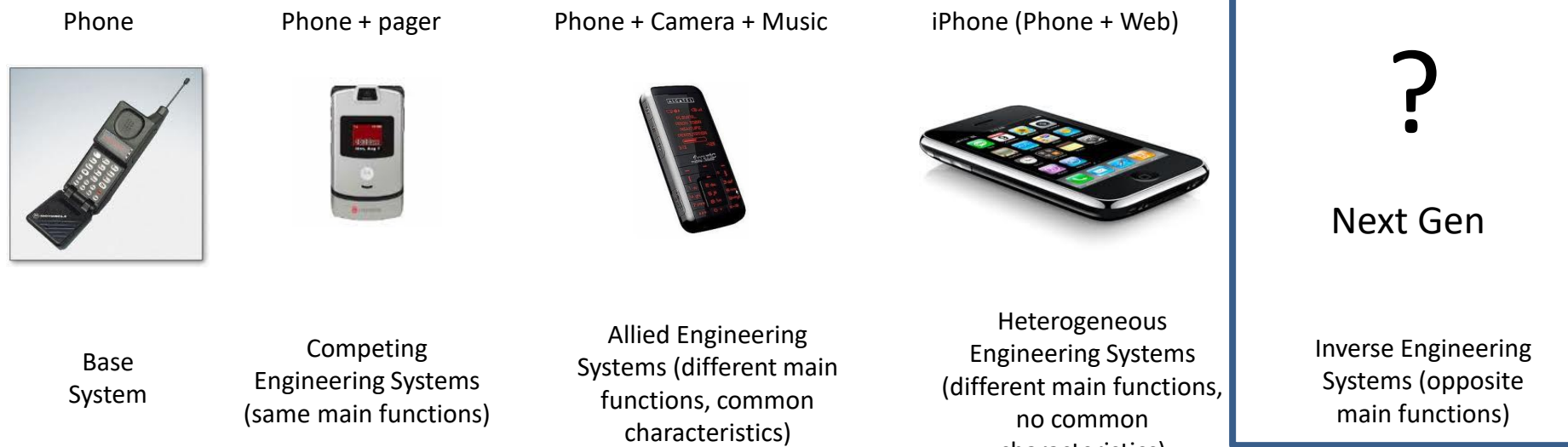
Increasing Integration

What other functions would consumers find useful in the iPhone?

# Trend of Transition to the Supersystem: Subtrend 1 – Increasing Differentiation Between

## Main Functions

As an eng. system evolves other systems integrate with it as follows:



time

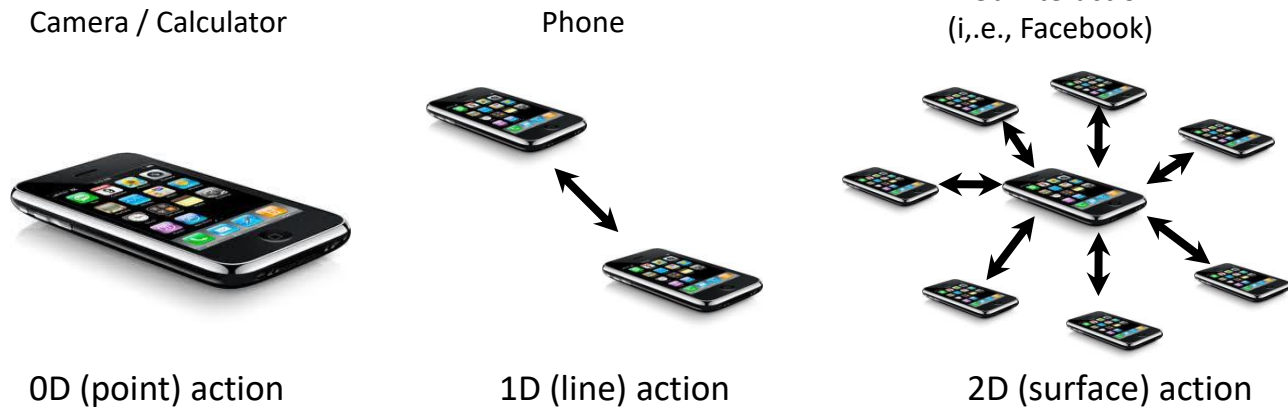


Increasing Differentiation

What opposite functions of communication, entertainment, etc. would be useful to iPhone users?

# Trend of Increasing Coordination: Subtrend 4 – Coordinate Action

As an eng. system evolves its actions become more coordinated w/ other sys.



?

Next Gen

3D (volume) action

0D-1D-2D-3D

time  $\xrightarrow{\hspace{15em}}$  Increasing Connectivity

What would 3D connectivity look like?

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# Trend of Increasing Controllability:

## Subtrend 1 –

### Increase Level of Control

As an eng. system evolves its control continues to increase.

PA System



Uncontrolled system

Fixed Point to Point



Fixed program

“Externally”  
Dialed iPhone

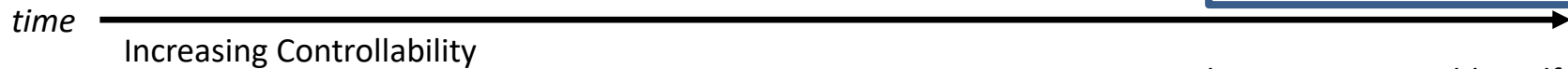


Externally controlled

?

Next Gen

Self-controlled system



What services would a self-controlled iPhone provide?

# Trend of Increasing Dynamization: Subtrend 1B – Field Dynamization

As an eng. system evolves its associated “fields” become more dynamic.

PA System



Constant field

“Tunable” /  
Coordinated  
Frequency (iPhone)



Resonant field

?

Next Gen

Interference  
field

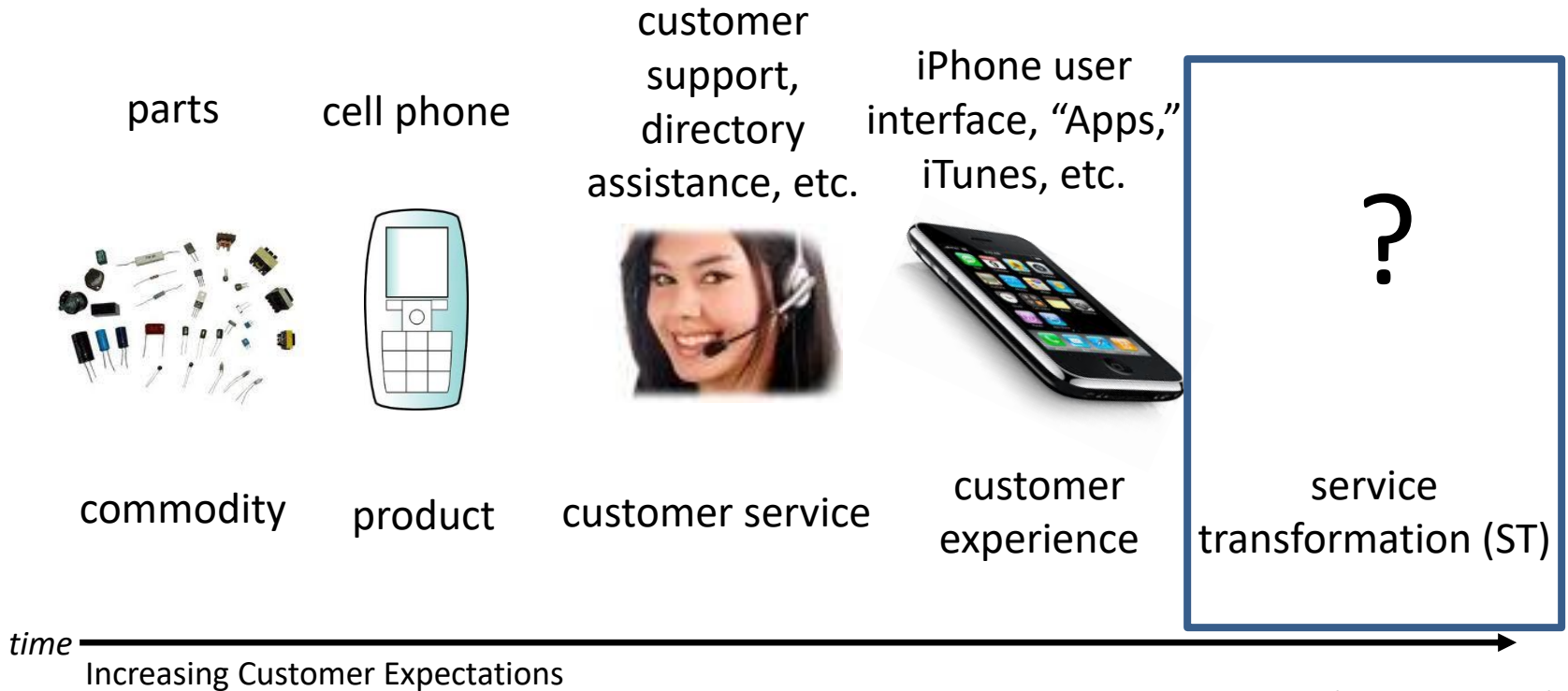


Increasing Field Dynamization

What would the addition of an Interference “field” enable?



As a business evolves its customer's expectations increase.



ST is providing customized services suggested by the business. What would super customization look like in an

iPhone?