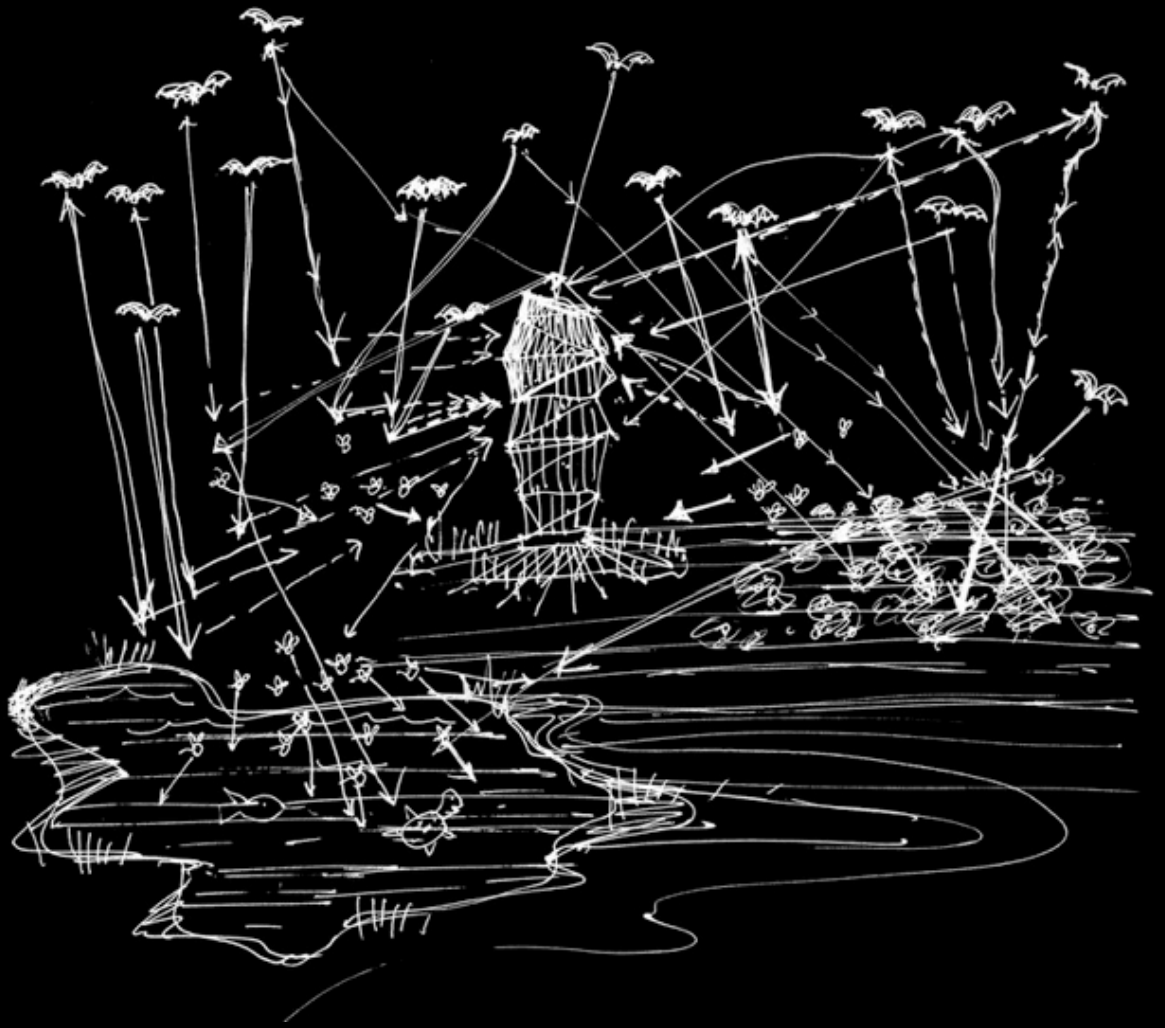
I have been working in the interactive media industry for 20 years and have seen the internet grow dynamically from humble beginnings through to dotcom boom and bust. Now I am enjoying radical growth and innovation in the mobile industry.

I currently run Nokia App Labs a team that researches, develops and validates new app concepts.

http://darrylfeldman.com



Design and Ecosystems: How design contributes to the bigger picture.

Why should Designers care about ecosystems?

To get an idea of the big picture
before crafting the details.

What is an “Ecosystem”?

In Nature
In Society
In Politics
In Business
In Technology

What is an “Ecosystem”?

Nature.

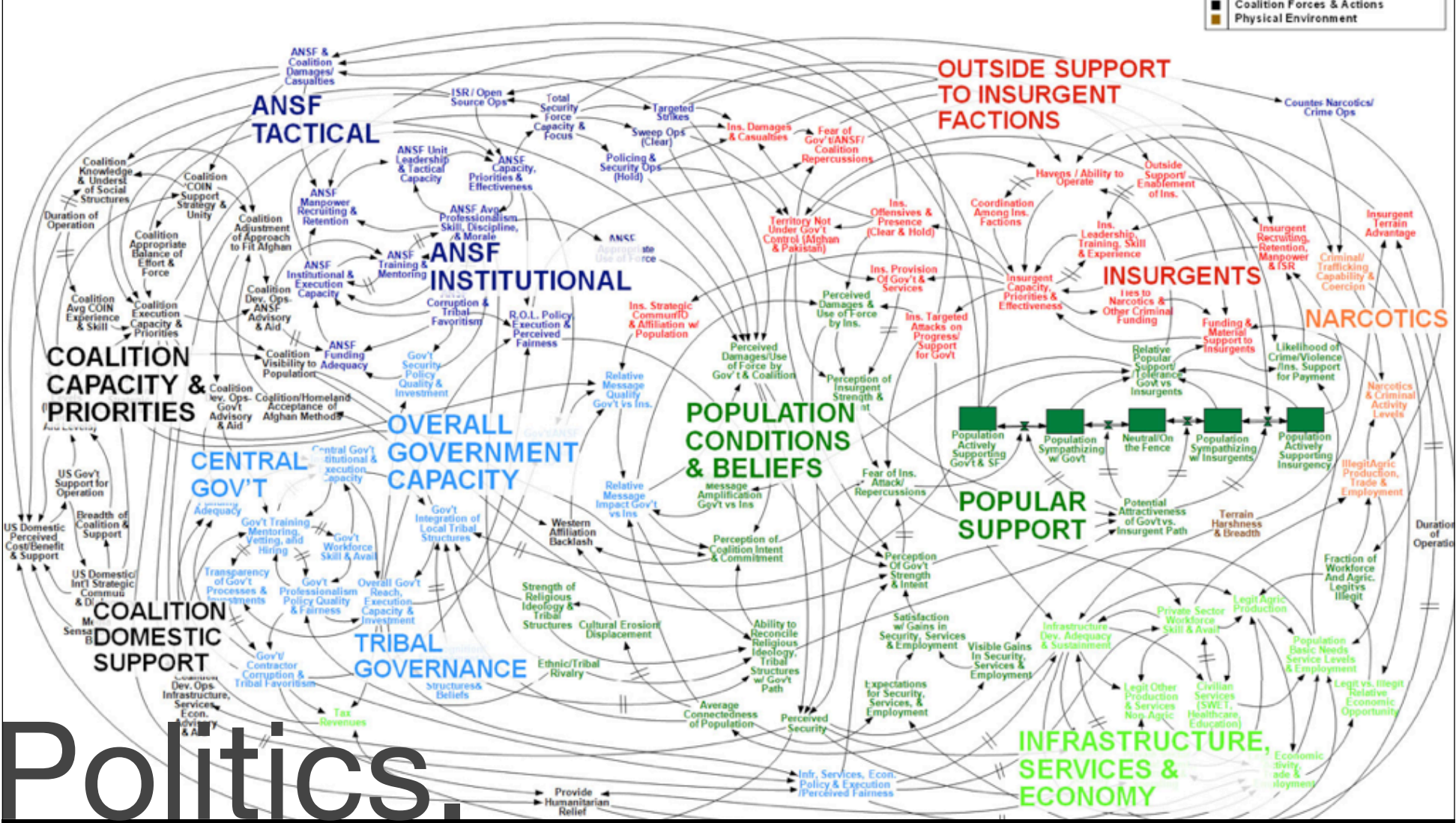
Natural ecosystems are all around us...for example in lakes, forests and deserts.

These ecosystems provide a critical balancing point for our planet where biodiversity is key.

Society.

Man has created his own ecosystems, cities an obvious example.

Roads, buildings, parks and transportation all work together to provide an optimal environment for us to thrive in.



Politics.

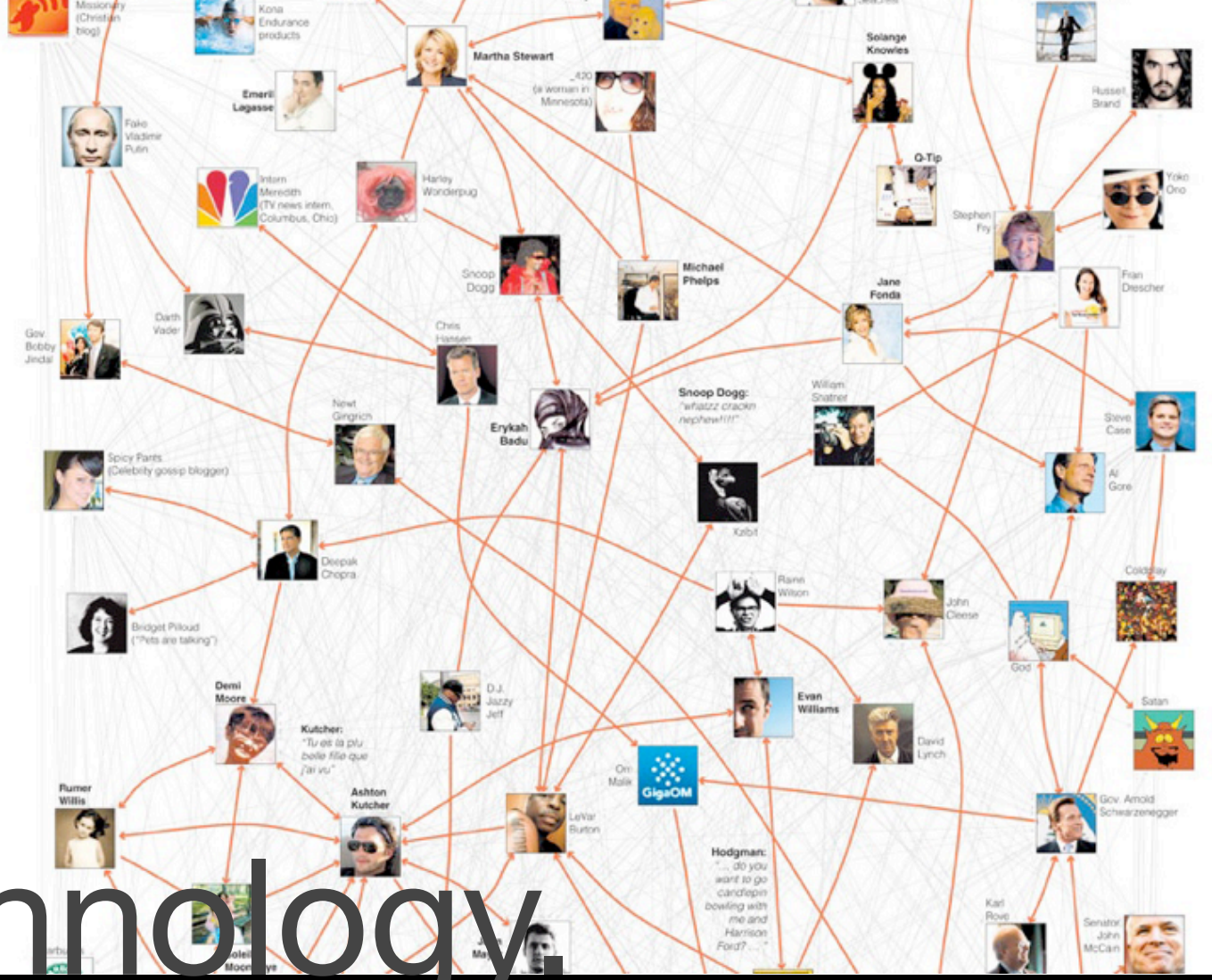
Political movements and situations create ecosystems too.

Dynamics and interdependencies between critical parties can lead to the downfall of governments.

Business.

Economic ecosystems use money as their fuel.

Banks, corporations, investors and traders work together to create value.

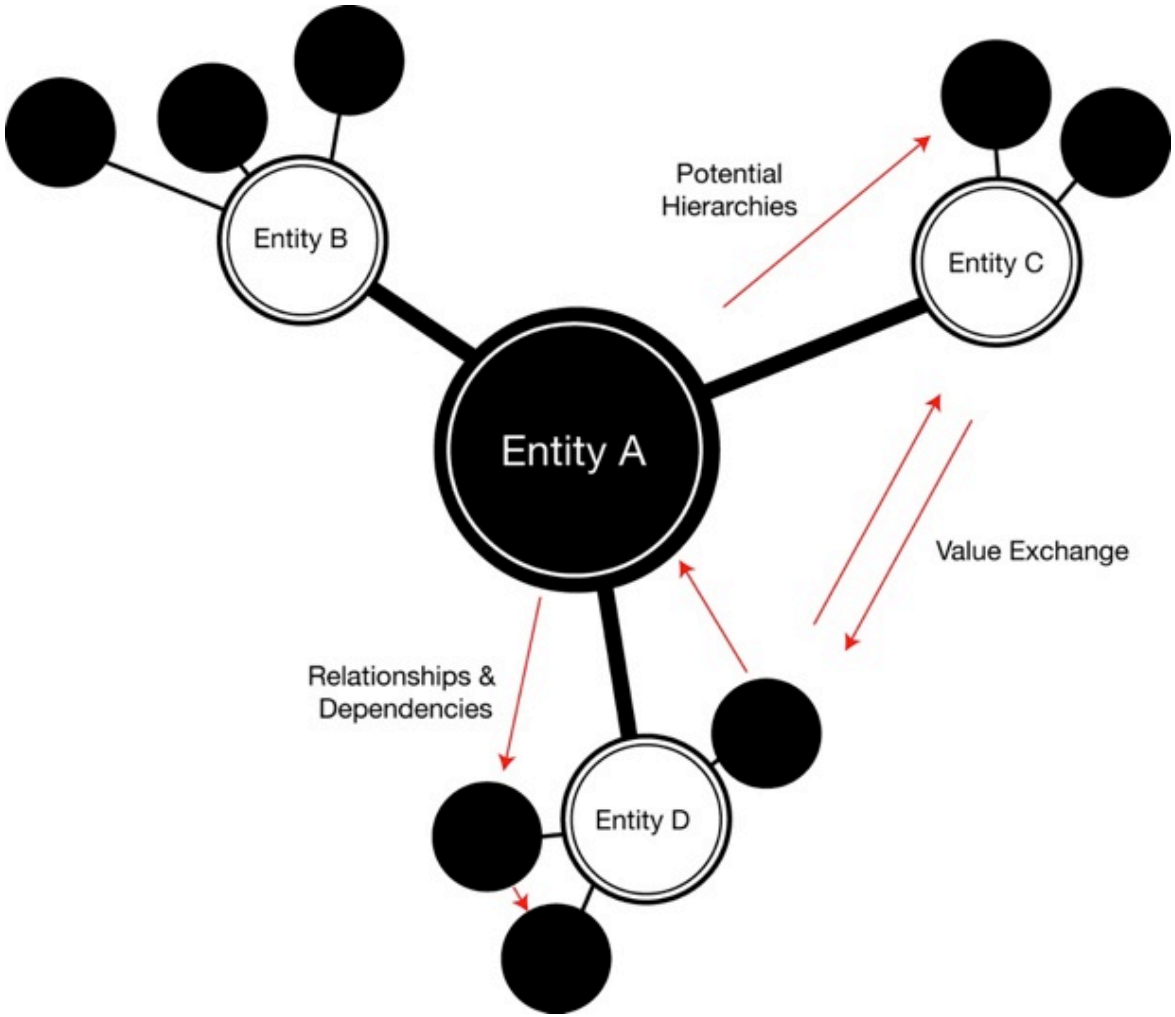


Technology.

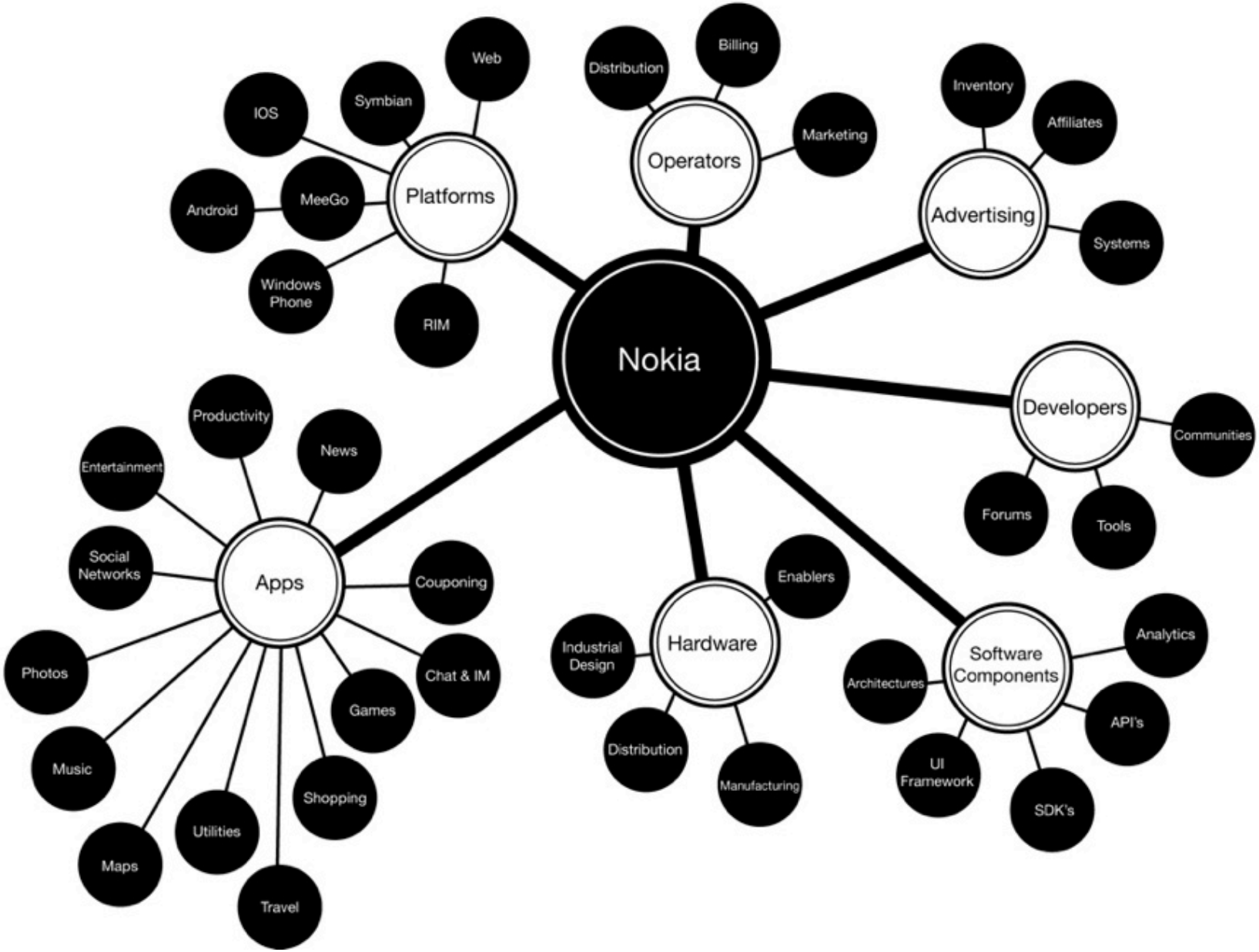
Technology enabled social networks create virtual ecosystems.

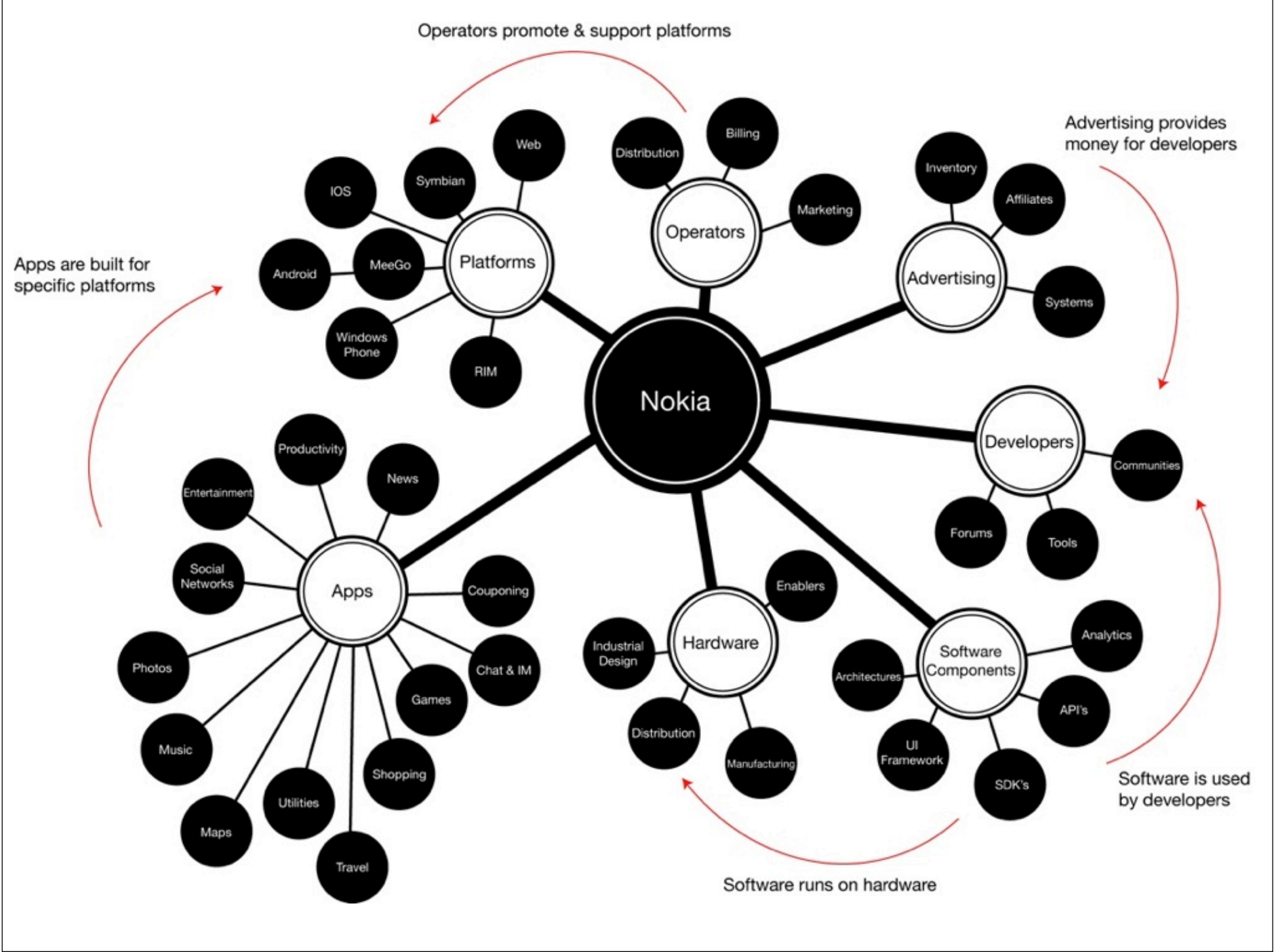
These virtual ecosystems have the same dynamics as their natural counterparts.

There are many different kinds
of ecosystems, but they all
share common structures,
rules and patterns.



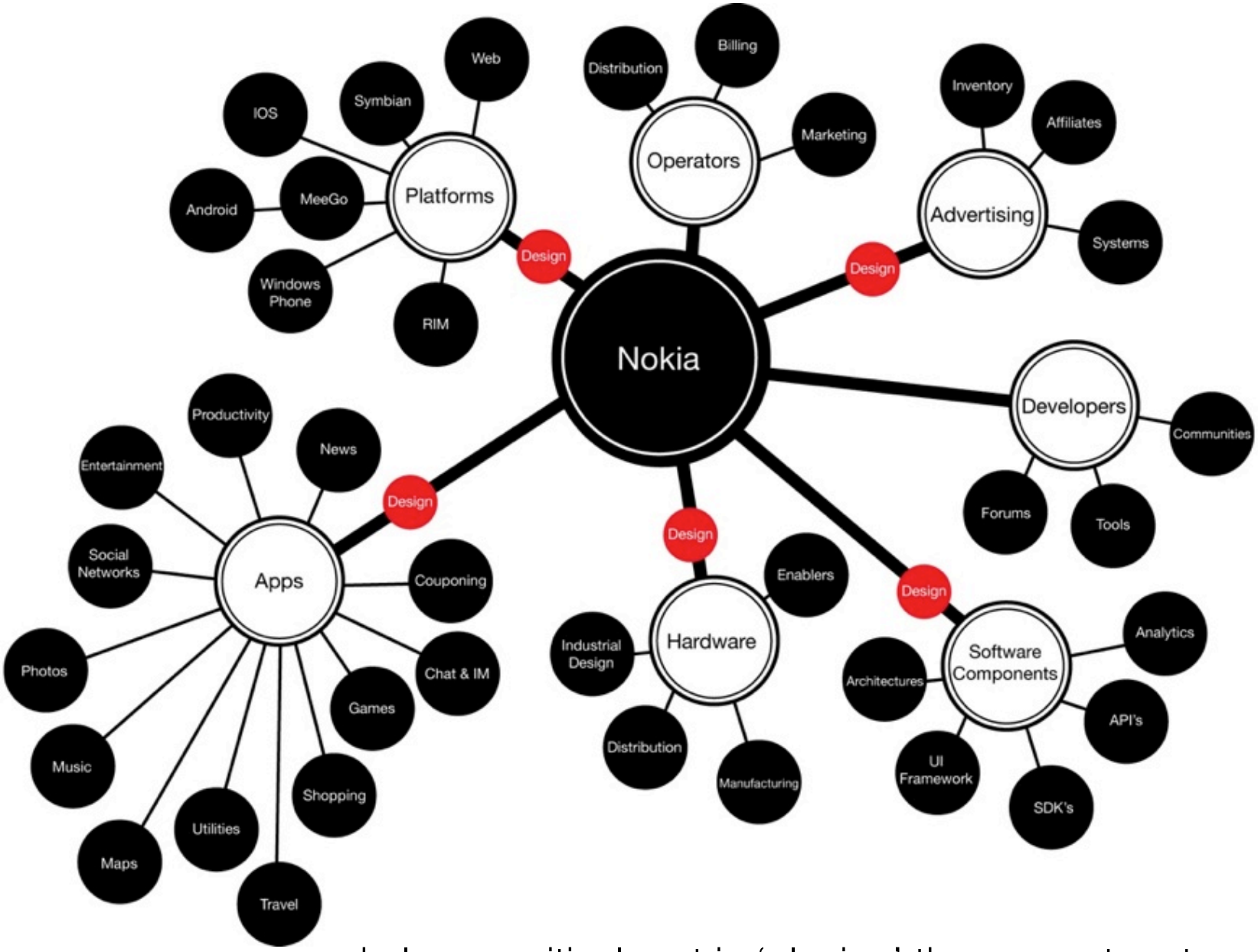
Generic anatomy of an ecosystem


Nokia
Platforms
Web
Symbian
IOS
MeeGo
Android
Windows Phone
RIM
Operators
Billing
Distribution
Marketing
Advertising
Inventory
Affiliates
Systems
Developers
Communities
Forums
Tools
Apps
Productivity
News
Entertainment
Social Networks
Couponing
Photos
Chat & IM
Games
Music
Shopping
Utilities
Maps
Travel
Hardware
Enablers
Industrial Design
Distribution
Manufacturing
Software Components
Analytics
Architectures
API's
UI Framework
SDK's


Operators promote & support platforms
Advertising provides money for developers
Apps are built for specific platforms
Software is used by developers
Software runs on hardware
Nokia
Platforms
Web
Symbian
IOS
Android
MeeGo
Windows Phone
RIM
Operators
Billing
Distribution
Marketing
Advertising
Inventory
Affiliates
Systems
Developers
Communities
Forums
Tools
Apps
Productivity
News
Entertainment
Social Networks
Couponing
Photos
Chat & IM
Games
Music
Shopping
Utilities
Maps
Travel
Hardware
Enablers
Industrial Design
Distribution
Manufacturing
Software Components
Analytics
Architectures
API's
UI Framework
SDK's

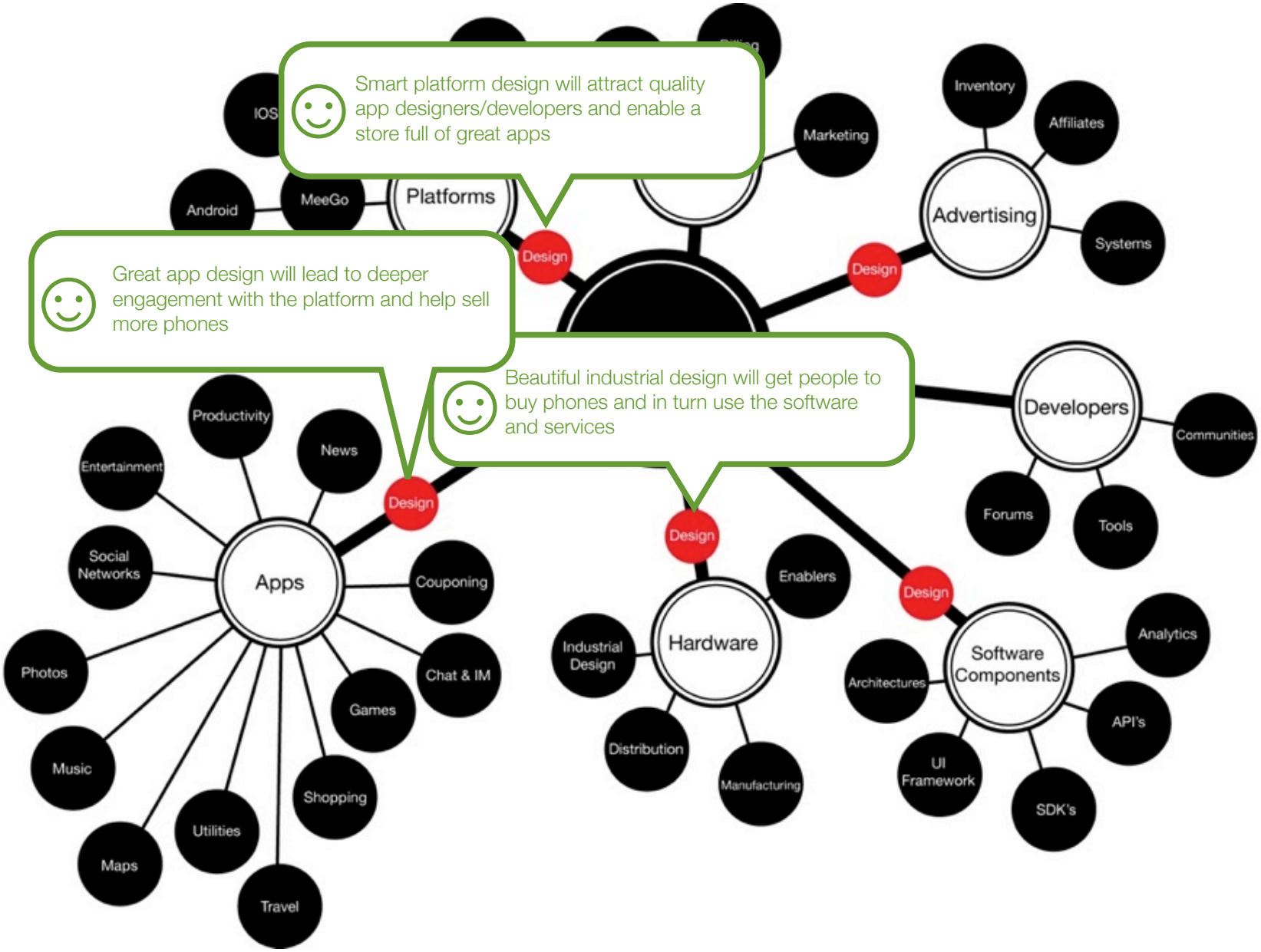
So what about Design...
how does that fit into
ecosystems?

Design is everywhere...

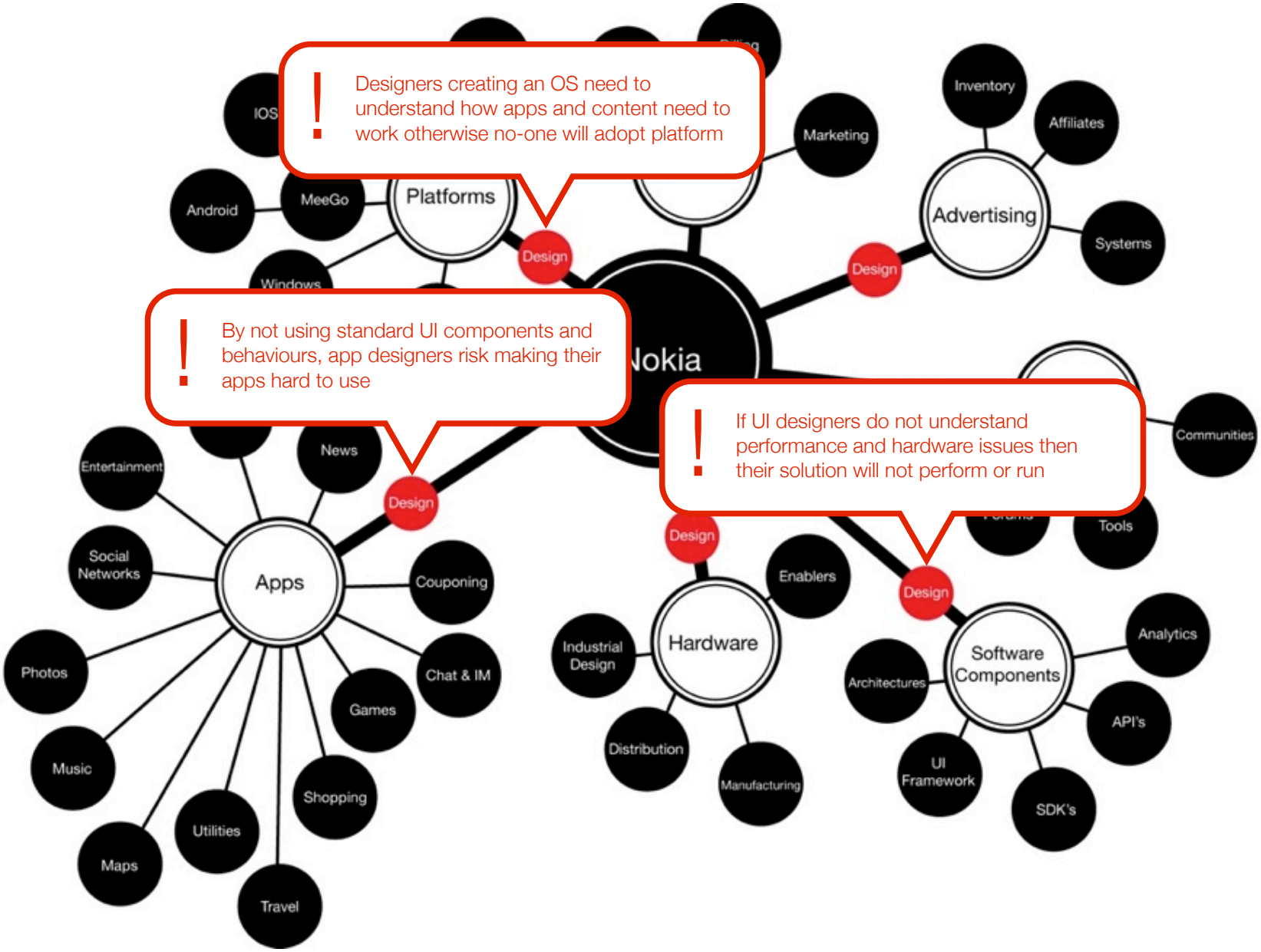


...and plays a critical part in ‘glueing’ the ecosystem together.

Good Design can lead to thriving ecosystems...



Bad Design can lead to broken ecosystems...



Some good examples of ecosystem design

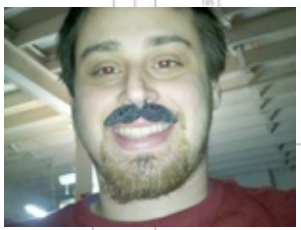
Good ecosystem design: Mac OS and IOS UI

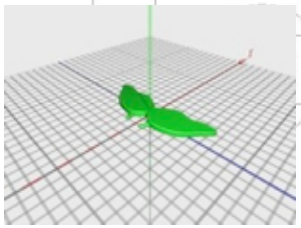
Apple designers have done a good job in enabling **their** iCosystem. UI components are optimised for all devices yet retain learnable behaviours and consistency. Their App Store is curated and iAds provide monitisation. Some don't like their closed approach to ecosystems but their products are good to use.

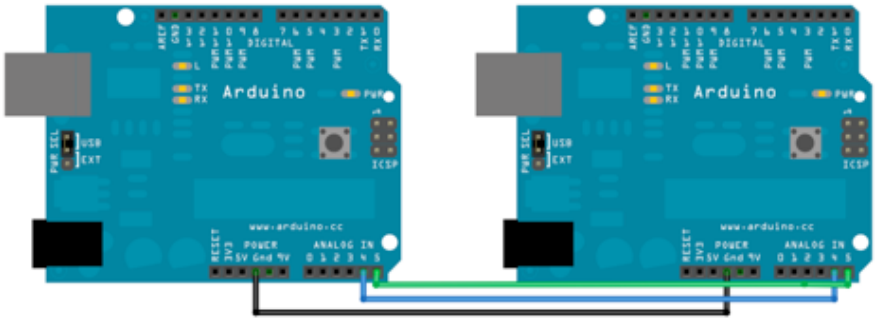
Good ecosystem design: Lego

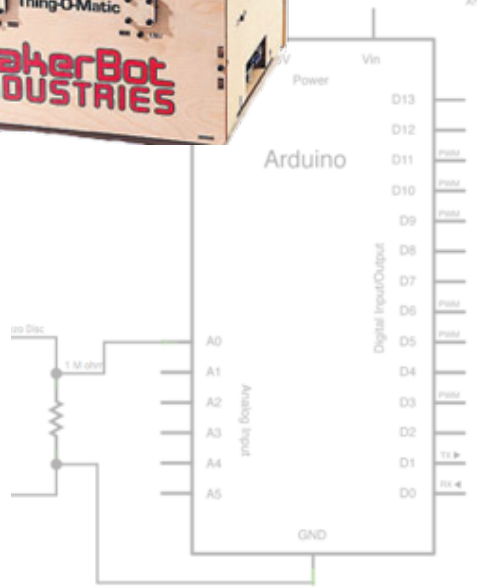
Lego designers have created the ultimate scaleable ecosystem whereby the same modular design principles can be leveraged and applied to anything from remote control robots to lunch boxes.

Good ecosystem design: Arduino





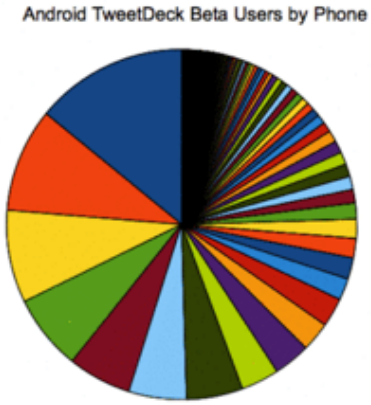




A grass roots driven open-source prototyping platform that enables hardware and software designers to innovate on top of standardised components. Coupled with the latest 3D printing technology Arduino now powers a thriving ‘personal manufacturing’ scene.

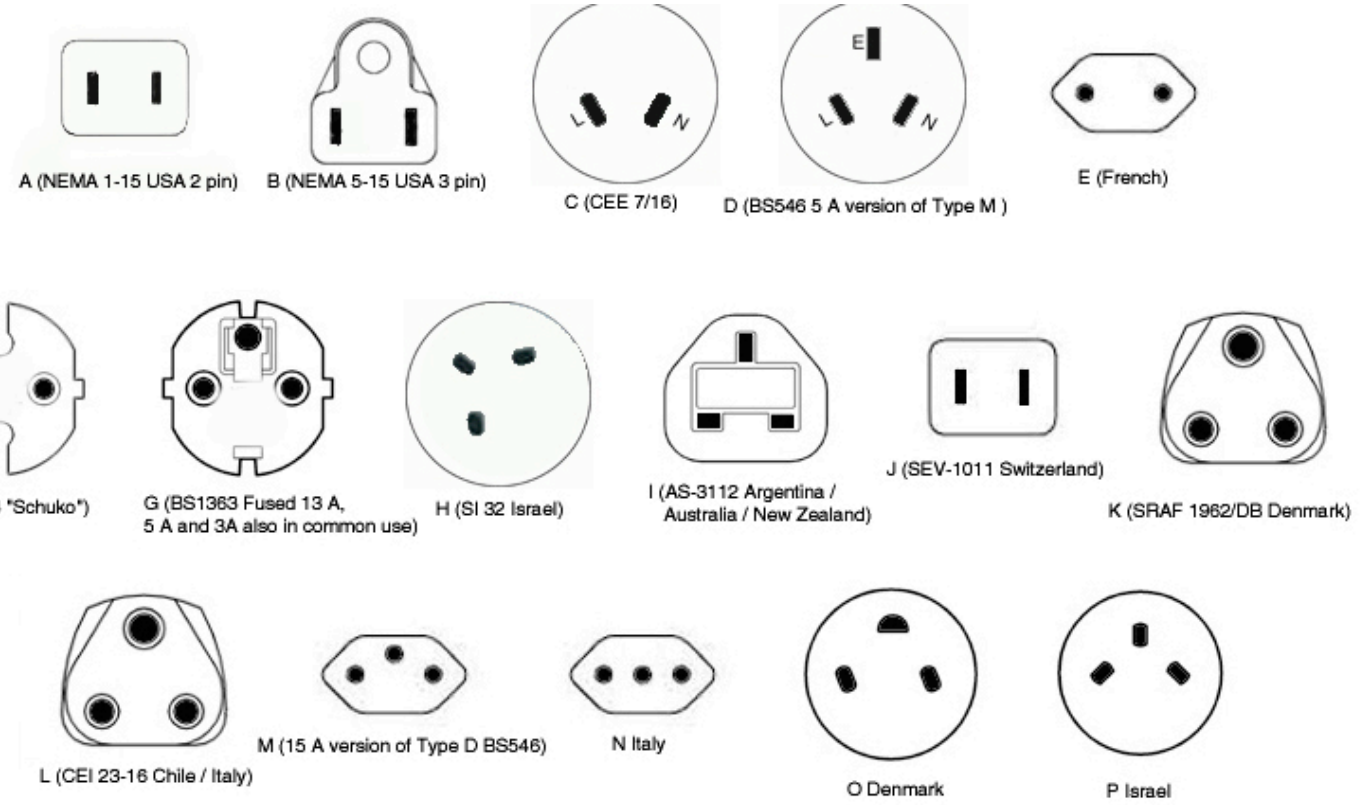
Some bad examples of ecosystem design

Bad ecosystem design: Android variants



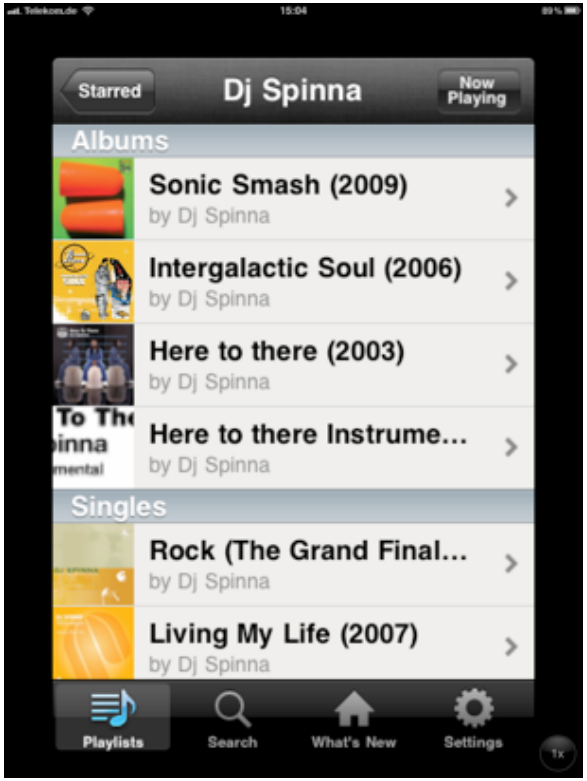
Companies have made their own customised versions of the OS leading to multiple versions running on a massive range of hardware. This makes it hard to manage, support and retain cohesiveness of the UI. However, Android is growing fast and is very open.

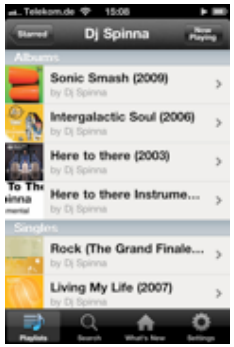
Bad ecosystem design: Electrical power sockets and plugs



No single global design has been established leading to numerous variants. With no standards in place life get's more complicated and expensive for us all.

Bad ecosystem design: Spotify





Spotify iPad users get the same iPhone UI - resulting in a very poor product experience. Spotify designers should have prevented this and designed an optimised UI for a larger screen.

Design Principles for Ecosystems

Design Principles for ecosystems

Simple:
Make things recognisable

Fluid:
Enable seamless integration

Modular:
Standardise and create patterns

Scaleable:
Ensure solution can grow over time

Flexible:
Make it easy to customise and adapt

Standards:
Build on learnt behaviours and existing assets

Discussion and QA.

The ecosystem dilemma.
Closed?
Open?
Apple?
Google?
What is the best design strategy?
Ortobom

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