

On Data Privacy and Digital Ecosystems

William T Torres, PhD

Academician

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Data Privacy vs. Data Security

- **Data Privacy** -- governs how data is collected, shared and used
- **Data Security** – protects data from compromise by external attackers and malicious insiders
- ***You cannot have data privacy without data protection***

What is an *Ecosystem*? *Business Ecosystem*?

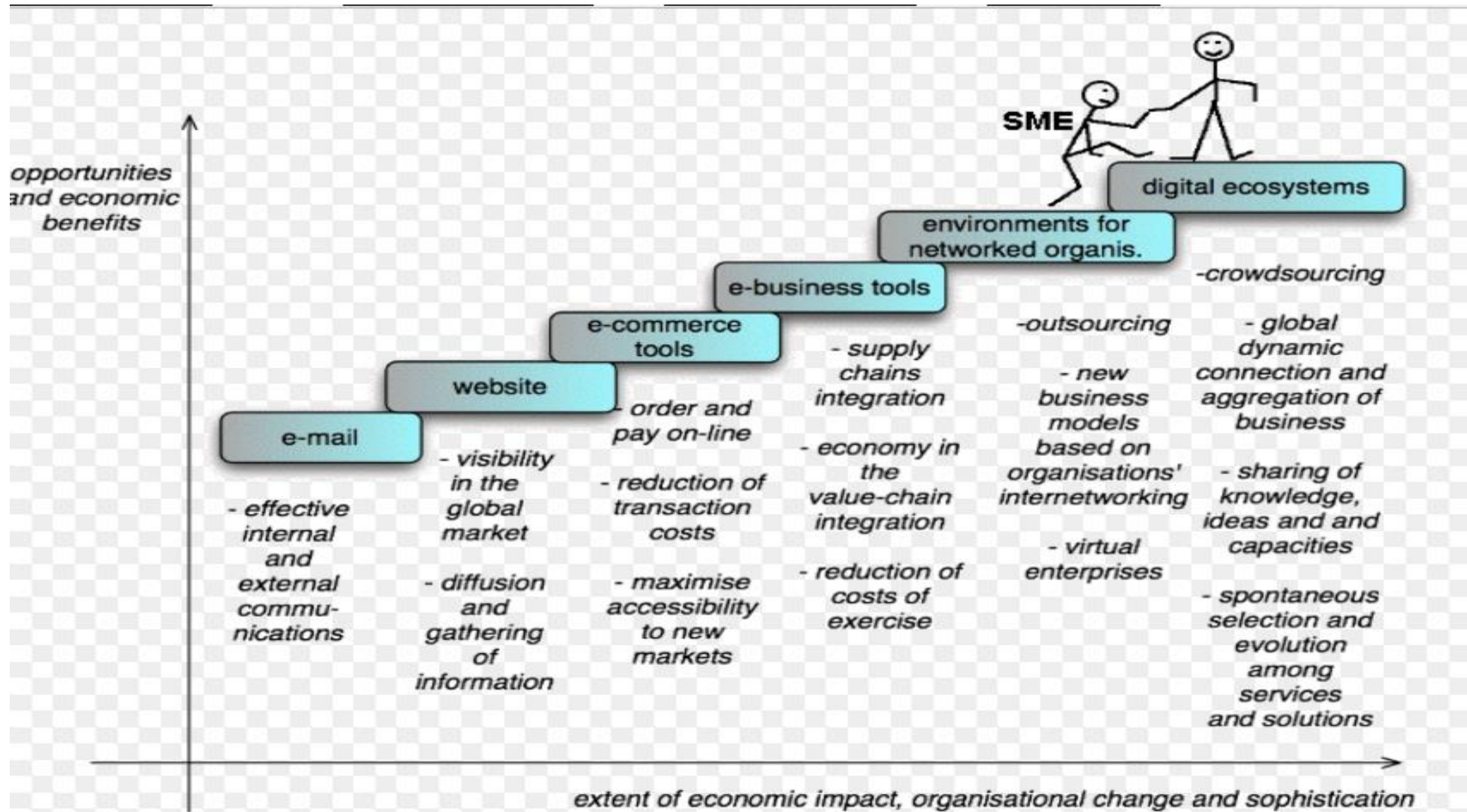
The term **ecosystem** is rooted in ecology and the work of early 20th century botanist Arthur Tansley. It originally denoted a community of biological, chemical, and physical components that function as a unit.

In the business context, **ecosystem** has come to mean a group of companies (e.g., partnerships, consortia, etc.) that cooperate to achieve shared goals, with or without formal ties. Thus, since the 1990s, we have been using the term **business ecosystem**.

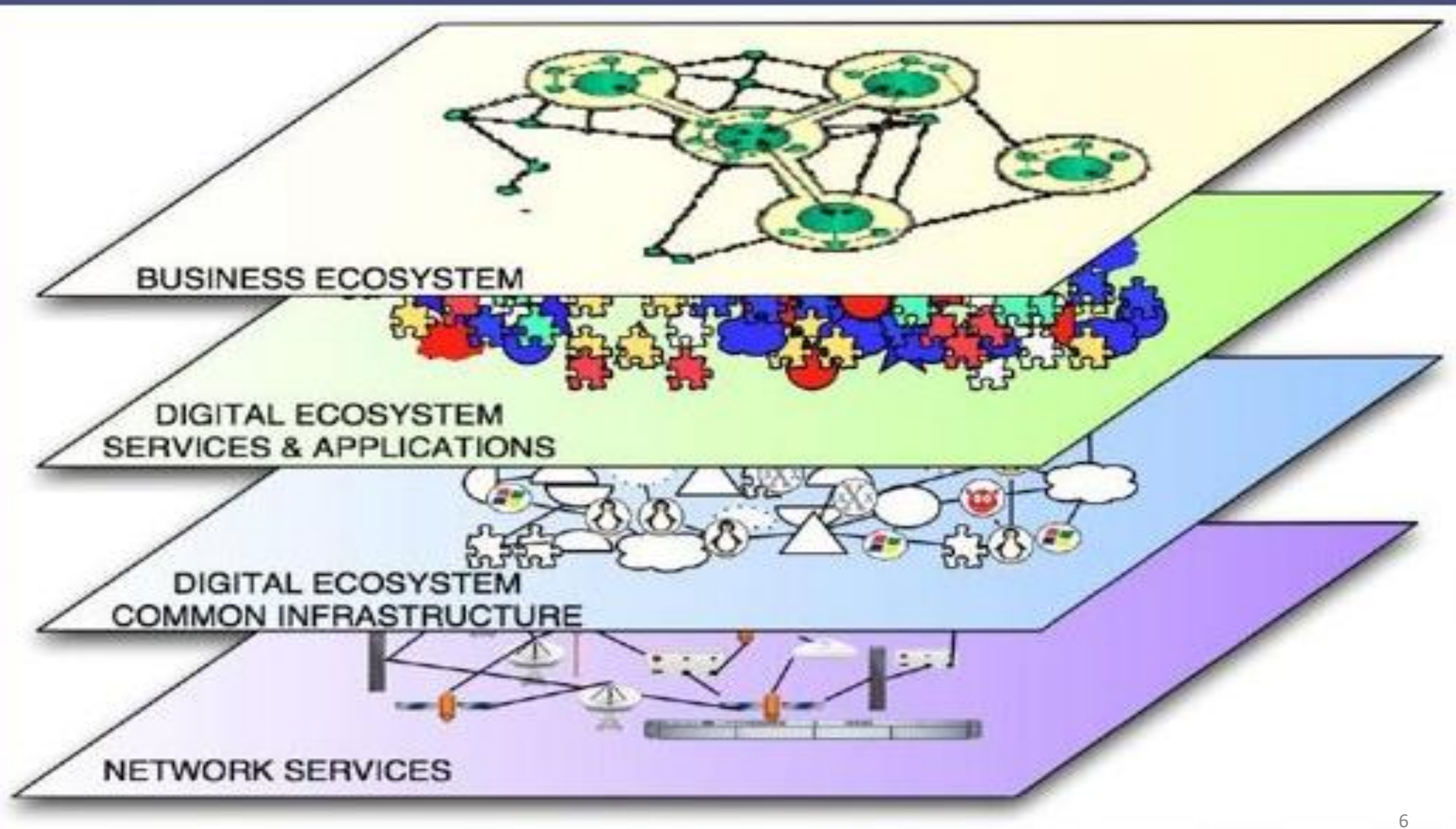
What is a *Digital Ecosystem*?

A ***Digital Ecosystem*** covers a wide array of relationships with external organizations and people that are digitally connected.

These include academic institutions, government entities, nonprofits, startups, customers, and even competitors (among many others).



Adapted from Cisco led Information Age Partnership study on e-commerce in small business



➔ How ecosystems compare to production in firms vs procurement in the open market

A

Market-based,
arms-length procurement

Final customer

Chooses and combines

Product 1

Service 2

Complement 3

Complement 4

B

Purchase via integrated firm
or supply chain

Final customer

Buys the "package" from

System integrator/
main supplier

Selects, pays and integrates

Complement 1

Complement 2

Component 3

Component 4

C

Ecosystem-based structure: A new way to balance flexibility and control

Final customer

Ecosystem orchestrator

Chooses from a curated set

Ecosystem core
component 1

Complement 2

Complement 3

Complement 4

Gives critical components; sets the terms
of engagement; decides who can
complement; does not fully own them