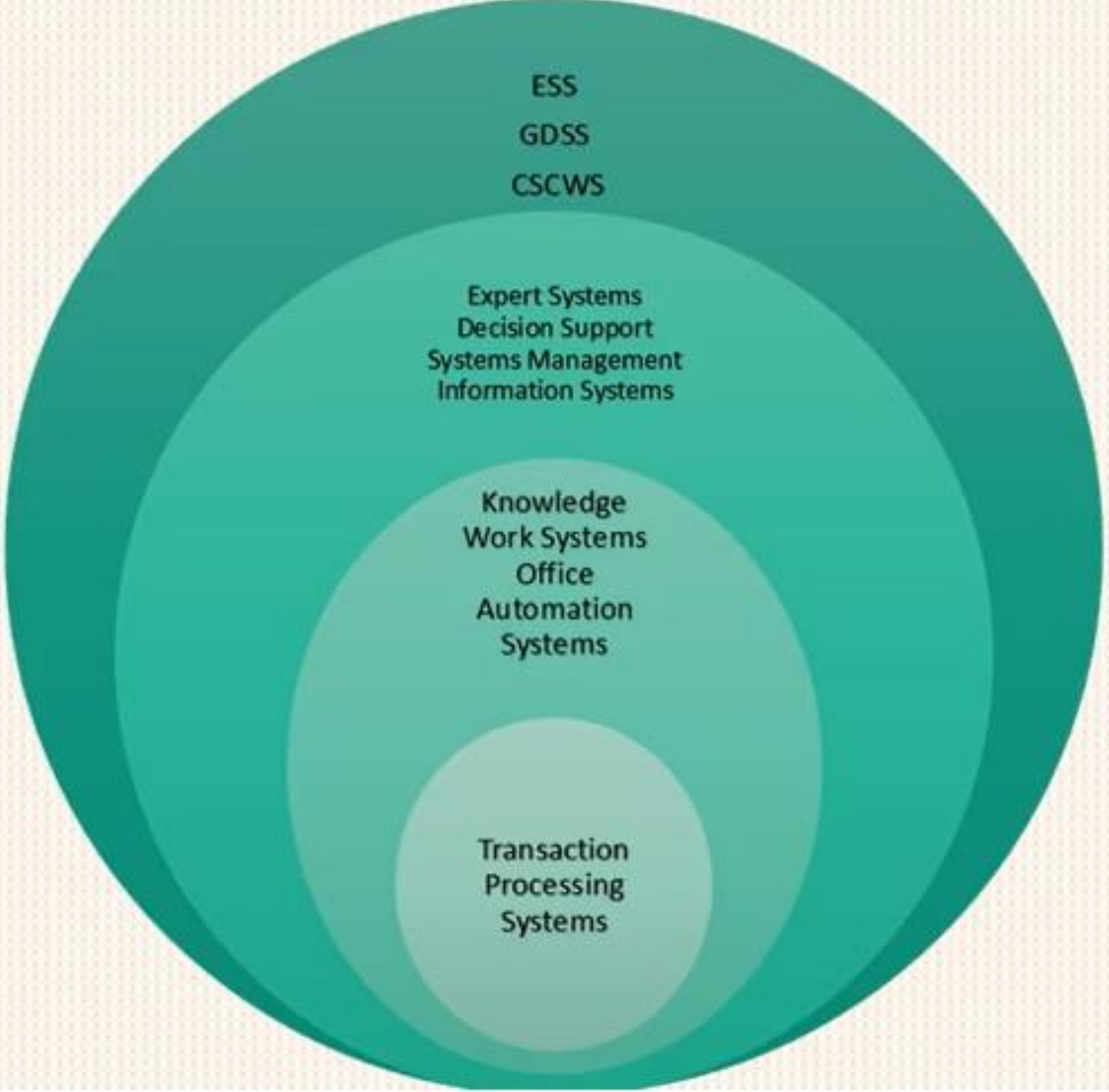
A system analyst may involve any one or all of these system



Transaction Processing System

- Transaction processing systems (TPS) are computerized information systems that were developed to process large amounts of data for routine business transactions such as payroll and inventory.
- Transaction processing systems are boundary-spanning systems that permit the organization to interact with external environments.
- By the TPS information is generating and keeping, to know about what is happening in the companies, it is essential to the day-to-day operations of business that these systems function smoothly and without interruption.

Office Automation Systems and Knowledge Work Systems

- At the knowledge level of the organization are two classes of systems. Office automation systems (OAS) and Knowledge work systems (KWS).
- Familiar aspects of OAS includes word processing, spreadsheets, desktop publishing, electronic scheduling, and communication through voice mail, email (electronic mail), and teleconferencing.
- Knowledge work systems (KWS) support professional workers such as scientists, engineers, and doctors by aiding them in their efforts to create new knowledge (often in teams) and by al- lowing them to contribute it to their organization or to society at large.

Management Information Systems

- MIS are computerized information systems that work be- cause of the purposeful interaction between people and computers.
- By requiring people, software, and hardware to function in concert, management information systems support users in accomplishing a broader spectrum of organizational tasks.
- Management information systems output information that is used in decision making.

Decision Support Systems

- A higher-level class of computerized information systems is decision support systems (DSS).
- DSS are similar to the traditional management information system because they both depend on a data- base as a source of data.
- A decision support system departs from the traditional management information system because it emphasizes the support of decision making in all its phases, although the actual decision is still the exclusive province of the decision maker.

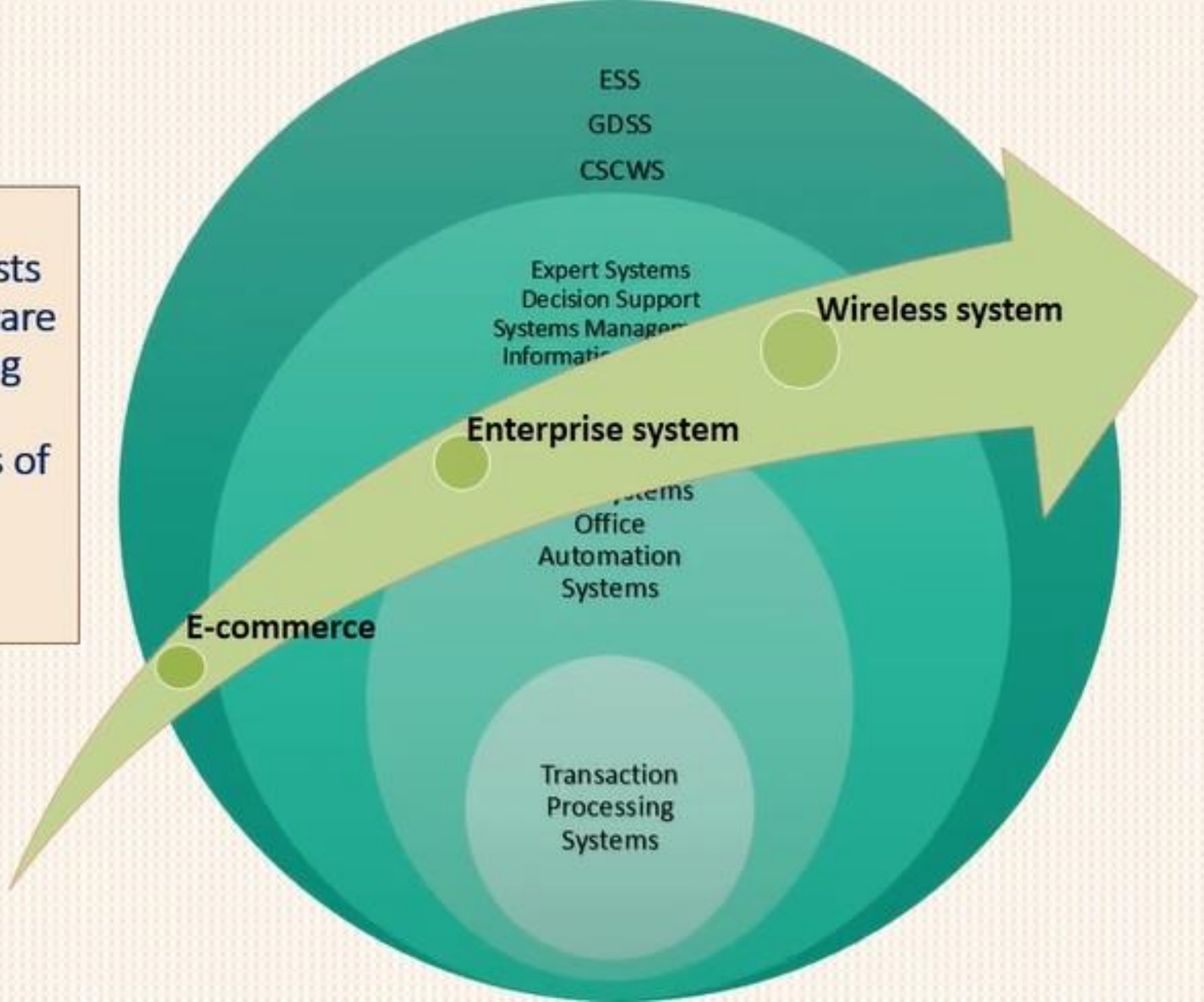
Artificial Intelligence and Expert Systems

- Artificial intelligence (AI) can be considered the overarching field for expert systems.
- The general thrust of AI has been to develop machines that behave intelligently.
- Two avenues of AI research are: (1) understanding natural language and (2) analyzing the ability to reason through a problem to its logical conclusion.
- Expert systems use the approaches of AI reasoning to solve the problems put to them by business (and other) users.

Group Decision Support Systems and Computer-Supported Collaborative Work Systems

- When groups make semi structured or unstructured decisions, a group decision support system (GDSS) may afford a solution.
- Group decision support systems are intended to bring a group together to solve a problem with the help of various supports such as polling, questionnaires, brainstorming, and scenario creation.
- Sometimes GDSS are discussed under the more general term computer-supported collaborative work systems (CSCWS), which might include software sup- port called groupware for team collaboration via networked computers.

Systems analysts need to be aware that integrating technologies affect all types of users and systems.



Ecommerce Applications and Web Systems

There are many benefits to mounting or improving an application on the Web:

1. Increasing user awareness of the availability of a service, product, industry, person, or group.
2. The possibility of 24-hour access for users.
3. Improving the usefulness and usability of the interface design.
4. Creating a system that can extend globally rather than remain local, thus reaching people in remote locations without worry of the time zone in which they are located.

Enterprise Systems

- Enterprise systems, also called enterprise resource planning (ERP) systems, are designed to perform this integration. Instituting ERP requires enormous commitment and organizational change.
- Often systems analysts serve as consultants to ERP endeavors that use proprietary software. Popular ERP software includes that from SAP and Oracle.
- Typically, analysts as well as some users require vendor training, support, and maintenance to be able to properly design, in- stall, maintain, update, and use a particular ERP package.

Systems for Wireless and Mobile Device

- Analysts are being asked to design a plethora of new systems and applications for adventurous users, including many for wireless and mobile devices such as the Apple iPhone, iPod, or the BlackBerry. In addition, analysts may find themselves designing standard or wireless communications networks for users that integrate voice, video, text messaging, and email into organizational intranets or industry extranets. Wireless ecommerce is referred to as m-commerce (mobile commerce).
- Wireless local area networks (WLANs); wireless fidelity networks, called Wi-Fi; and personal wireless networks that bring together many types of devices under the standard called Bluetooth are all systems that may be asked to design.

Upper CASE Tools

- Upper CASE tools: allows the analyst to create and modify the system design. All the information about project is stored in CASE repository.