

FACT SHEET

 Socio-Technical Theory	DEFINITION Cartelli (2007) Socio-technical theory (STT) imagines the presence of 2 subsystems in every organization or corporate; a technical sub-system and a social sub-system. The technical sub-system is more than the sum of the equipment in the organization. The social sub-system, is more than the set of technical control tasks to be executed by users.	USE IN HI Yen, McAlearney, Sieck, Hefner, & Huerta (2017) STT provides people-focused (socio) fundamentals, organizational and human, and information technology elements (technical) as symbiotic parts of a system; these segments should be evaluated together, seen in organizations, processes, and systems/tools.
 Socio-Technical System	DEFINITION Whitworth & Ahmad (2008) A socio-technical system (STS) is one that considers requirements spanning hardware, software, personal, and community aspects. It applies an awareness of the social make-ups, roles and rights (the social sciences) to apprise the intention of systems that involve communities of people and technology.	USE IN HI Whetton & Georgiou (2010) STS offers a inclusive context of the system which may be applied to collect patient and provider feedback to guide the design and implementation of new health information technology; for example an electronic health records (EHR) system or a clinical decision support system (CSSS) to assist hospital staff.

 SOCIAL CATEGORIES RELATION TO STT/STS AND HI & AFFECTS		
HEALTH & CLINICAL CARE Wesley, Schubel, Hsiao, Burn, Howe, Kellogg, Lincoln, Kim & Ratwani (2019) Patient-reported outcomes help inform decisions in health care and the clinical settings. STT/STS create the framework (systems and policies) within the HI realms to assist in the collection of data directly from patients to be used by those providing care to be better informed to assist with patient care.		CITIZEN DRIVEN INFORMATICS Valdez, Detmer, Bourne, Kim, Austin, McCollister, Rogers & Wickss (2021) This is the concept of public collaboration in the scientific process, addressing real-world difficulties or issues; this may be through collecting and analyzing data, interpreting results, and evaluation of process, tools, and applications.
SOCIAL CATEGORIES AFFECT ON STT/STS AND HI (POSITIVE & NEGATIVE)		
The affects of this area on the patient population for the most part positive, ensuring patient safety and data accuracy and security. Areas for improvement align to process improvement and adherence to workflows and processes. The rapid pace of change (in technology and requirements) may also influence this area.		There are many positive affects of this area, for example increased data sets/information and research capacity, greater engagement and participation, and public understanding. Conversely, data quality and fragmented interoperability of systems may be problematic.



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TECHNICAL CATEGORIES RELATION TO STT/STS AND HI & AFFECTS

CLOUD

Gaur (2015)

COMPUTING

May be described as a model for enabling convenient, on-demand, network access to shared pool of configurable resources (e.g. network servers, storage, applications); in regards to STT/STS and HI, this concept serves to provide access to a greater audience with defined workflows.

PERSONAL HEALTH RECORDS (PHR)

Purin & Piras (2010)

PHR is an electronic application which allows patients to maintain and manage personal health information in a private and secure situation; per STT/STS and HI, these tools provide a comprehensive network connecting providers/clinicians to patients.

TECHNICAL CATEGORIES AFFECT ON STT/STS AND HI (POSITIVE & NEGATIVE)

The benefits of this area include the ability to rapidly provision and release applications with minimal effort or provider interaction. Additionally, cloud-based systems are easily accessed via Internet enabled devices. Negatively, these systems may experience security breaches and potentially compromise data.

Connectivity and access to e-health infrastructures is a key benefit for lay users, who may not otherwise have access to their own health records. Also, PHR is a fast, easy, and secure way for patients to share information with providers. As with other open systems, security and misappropriated use of data may be problematic.



RESOURCES

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