New Paradigms of Information Society

Fakulteta za informacijske študije
Faculty of information studies

TIA2030
Jean Monnet Centre of Excellence

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Scope

- Technology, innovation and societal change in Europe.
- Digital participation and movements for sustainable development.
- Digital inequalities and opportunities for inclusion.
- Individualisation, reflexivity and digitally mediated choices.
- Globalisation and EU public diplomacy towards third countries.
- Current ICT developments in the EU and beyond.

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Scope

- Compare explanations of information society, including post-industrialism, network society and cultural political economy.
- Analyse technology in relation to participation, inequality, individualisation and globalisation.
- Examine EU strategic priorities and their implementation through institutions and social practices.
- Develop a research argument about information technology and contemporary European society.

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Course assessment

- Submit an essay or research paper in the form of a scientific article, at a standard suitable for peer-reviewed publication.
- The paper may build on your doctoral research topic, provided it addresses the course themes.
- The essay accounts for 100% of the grade.
- Attendance is highly recommended. Active participation and the Faculty's requirements for written work apply.

Detailed obligations follow the course instructions and the lecturer's guidance.

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The concept of information society

- The production, circulation and management of information become central activities in social life.
- Information has always mattered. The analytical issue is what changes in its scale, organisation and power.
- Related concepts include post-industrial society, post-Fordism, network society and knowledge society.
- Each concept foregrounds different mechanisms and different forms of continuity or change.

What evidence would distinguish a new social form from change within an existing one?

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Historical ideal types help comparison. They do not establish a universal sequence.

Agrarian and industrial transformations

Dimension	Agrarian society	Industrial society
Production	Agriculture and craft production	Factory production and mechanisation
Organisation of work	Land, households and local hierarchies	Wage labour and separation of home and workplace
Social change	Occupational groups beyond farming	Urbanisation and mass education
Analytical caution	Diverse historical trajectories	Capitalist and socialist variants

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Post-industrial society

- Daniel Bell emphasises the growing significance of services, professional work and theoretical knowledge.
- Higher education and research become important institutions in the organisation of innovation.
- Knowledge acquires a stronger role in economic coordination and social decision-making.
- The relationship between ownership, managerial control and expertise becomes a central question.

Does a larger service sector necessarily imply a more equal or sustainable society?

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Fordism

- Large-scale production combines standardised products with mass consumption.
- Capital-intensive production relies on relatively fixed processes and hierarchical management.
- Routine tasks, managerial control and organised labour shape the employment relationship.
- Production arrangements have wider consequences for consumption, welfare and national economic policy.

Which features remain visible in contemporary technology industries?

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Post-Fordism

- Information technologies support more flexible production, coordination and specialised services.
- Firms can reorganise work through outsourcing, subcontracting and international production networks.
- Changing skills and working-time arrangements can redistribute both autonomy and insecurity.
- Consumer differentiation and multinational firms challenge earlier patterns of standardisation and national coordination.

Who gains flexibility, and who bears the risks of adjustment?

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Bell's sectoral distinctions

Sector	Illustrative activities	Analytical issue
Primary	Extraction and agriculture	Material inputs remain necessary
Secondary	Manufacturing	Production can become more knowledge-intensive
Tertiary	Transport and infrastructure	Coordination and movement
Quaternary	Trade and finance	Exchange and intermediation
Quinary	Health and education	Human services and knowledge

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Codified knowledge and innovation

- Bell identifies the codification of theoretical knowledge as a defining feature of post-industrial society.
- Scientific knowledge increasingly informs technological development and organised innovation.
- Research institutions, firms and public authorities shape how knowledge becomes usable.
- Codification raises questions about access, ownership and whose expertise counts.

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Work, education and forms of capital

- The post-industrial thesis highlights professional and technical occupations and changing patterns of employment.
- Education becomes an important route to occupational mobility, alongside inherited advantages.
- Human, social and cultural capital draw attention to resources beyond financial assets.
- Access to qualifications and influential networks can reproduce inequalities as well as open opportunities.

Which indicators would show whether educational expansion improves social mobility?

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Intellectual technologies and infrastructure

- Algorithms, software, modelling and simulation expand the tools available for analysis and coordination.
- Communication networks become important infrastructure for economic and social activity.
- Physical infrastructure remains essential to digital systems, including energy, hardware and connectivity.
- Technical capacity and social access need separate analysis.

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Knowledge, value and public access

- Bell's argument assigns knowledge a central role in innovation and value creation.
- Knowledge can support productivity, while ownership and institutional rules shape the distribution of gains.
- Public access to knowledge can enable reuse and further research.
- The benefits of sharing depend on usable formats, relevant skills and the terms of access.

How do open educational resources change access to knowledge, and where do barriers remain?

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Castells and the network society

- Castells relates network society to the convergence of information technology, capitalist restructuring and social movements.
- These developments interact rather than operate as independent technical causes.
- Networks become an important organisational form across economic, political and cultural life.
- The analysis concerns connections, power and exclusion as well as communication technologies.

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Informational and global economies

- In an informational economy, the capacity to generate and process knowledge becomes a source of competitiveness.
- Global coordination connects strategically important activities across places and time zones.
- Local, regional and national economies remain part of these relationships.
- Network integration is geographically uneven and can coexist with exclusion.

How can a digital connection create opportunity in one region and dependency in another?

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The network enterprise

- The network enterprise coordinates selected units of firms and organisations around specific activities or projects.
- Internal decentralisation can combine with alliances, supplier relations and external partnerships.
- Project needs can change the composition and duration of a network.
- Control may remain concentrated even when tasks are distributed.

Who sets the rules, controls the data and captures value within a network?

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Technology, work and employment

- Digital systems can support flexible working arrangements and coordination across organisational boundaries.
- Corporate strategies and public policies shape employment outcomes alongside technological capabilities.
- Outsourcing and individualised contracts can alter bargaining power and responsibility.
- Job quality, security and autonomy require analysis beyond the number of jobs.

How would you distinguish a technological effect from a managerial or policy choice?

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Digital inequality and exclusion

- Differences in connectivity and equipment can limit participation in digital life.
- Skills, accessibility and relevant support affect what people can do with technology.
- Health, income, age and discrimination can interact with digital barriers.
- Useful outcomes may remain unequal even when access expands.

Which barriers must a digital public service address to avoid reinforcing exclusion?

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Digital inclusion in Europe

- *Select a digital public service or learning platform in a European setting.*
- *Compare barriers in access, design, skills and the availability of personal support.*
- *Assess possible responses such as accessible interfaces, training or assisted access.*
- *Identify evidence that users gain opportunities, rather than only register or log in*.

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These four areas provide a policy case for applying information-society theories.

EU policy case: the Digital Decade

Policy area	Question for social analysis
Digital skills	Who can participate, and how are capabilities measured?
Digital infrastructure	Which places and groups receive reliable access?
Business digitalisation	Who adopts technology and captures the benefits?
Digital public services	Does availability translate into usable, inclusive services?

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The culture of real virtuality

- Castells uses real virtuality to describe a culture in which mediated symbols become part of lived experience.
- Electronic media enter everyday relationships, consumption and the formation of meaning.
- Concentrated media ownership can coexist with highly differentiated audiences.
- Digital experience has material and social consequences.

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Mediated politics and participation

- Political actors use media to gain visibility and frame public problems.
- Digital communication creates channels for organisation, advocacy and public debate.
- Visibility, political voice and influence on decisions are different outcomes.
- Media ownership, platform rules and access to resources can shape participation.

How would you assess whether an online debate affected a sustainable-development decision?

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Identity and social movements

- Castells examines tensions between established institutions and emerging collective identities.
- Environmental, feminist and other rights-based movements challenge how social problems are defined.
- Digital networks can connect participants while leaving differences in resources and influence intact.
- Collective identity can enable cooperation and also produce boundaries of belonging.

How does a movement connect its claims to Agenda 2030, and whose experiences does it represent?

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European participation and sustainability

- The European Citizens' Initiative offers a formal route to request EU action.
  - *Compare this route with the digital mobilisation of a sustainability movement.*
  - *Examine whose claims enter discussion and how online activity connects with collective action.*
  - *Use documents and participant accounts to distinguish demands, responses and outcomes.*

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Individualisation and reflexivity

- Individualisation concerns changes in how people organise biographies, work and responsibility.
- Reflexivity concerns the examination and revision of practices in light of knowledge and experience.
- Digital systems can widen choices while making monitoring and comparison more pervasive.
- Personal agency remains shaped by institutions and unequal resources.

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Digital choices and individual responsibility

Possible opportunities	Conditions and tensions to examine
Flexible learning and career development	Access to time, skills and institutional support
Online self-presentation and professional networks	Reputation, visibility and pressure to remain available
Tools for monitoring personal goals	Who defines the indicators and controls the data
More information for everyday decisions	Unequal capacity to interpret information and act on it

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Reflexivity and digitally mediated identities

- People can revise their self-understanding through online interaction and feedback.
- Profiles, recommendations and ratings provide categories for comparison and judgement.
- Reflexive action involves interpreting these categories and deciding whether to accept or challenge them.
- Institutions and platforms also influence which identities and choices become visible.

How could you study changes in self-understanding without treating a profile as a complete identity?

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Time and space in network society

- Castells' timeless time concerns changes in sequencing and coordination under networked conditions.
- Synchronous and asynchronous communication can reorganise work and interaction.
- The space of flows connects activities across geographically separated locations.
- These connections remain dependent on infrastructures, institutions and people.

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The social organisation of flows

Dimension	What to examine
Infrastructure	Communication systems and the technical conditions of connection
Nodes and hubs	Locations that coordinate strategically important activities
People and power	Actors who control networks and access to influential positions

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Networks and localities

- Financial, technological and organisational networks operate through concrete places.
- Global coordination depends on local skills, institutions and material resources.
- A locality's position in a network affects its opportunities and vulnerabilities.
- Flows have directions and controlling actors, even when organisational links cross borders.

How could a region change its role in a network without reproducing existing inequalities?

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EU public diplomacy and digital networks

- EU public diplomacy involves sustained engagement with publics beyond the EU.
- The EEAS distinguishes informational, reputational and relational dimensions.
- Digital networks can support dialogue and exchange about shared challenges, including sustainable development.
- Research should distinguish audience reach from understanding, cooperation and trust.

What evidence would show that engagement became a continuing relationship?

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EU digital partnerships beyond Europe

- Global Gateway includes digital connections and cooperation with partner countries.
- The Commission presents the strategy as aligned with Agenda 2030 and the SDGs.
  - *Study how an EU-supported initiative explains its aims and engages local publics.*
  - *Compare EU messages with local priorities, stakeholder responses and implementation evidence.*

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Cultural political economy

- Cultural political economy connects meaning-making with institutions, material resources and power.
- People simplify complex social realities through selective descriptions and categories.
- Economic imaginaries give some activities and priorities greater visibility than others.
- Digital communication can circulate these imaginaries and help organise action around them.

What does the phrase “digital transformation” make visible, and what does it leave out?

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Economic imaginaries and implementation

- An economic imaginary is a selective account of how an economy works and what it should become.
- A persuasive vision can guide institutions, investment and organisational routines.
- Material resources and existing power relations affect whether a vision takes hold.
- Implementation gaps can reveal a mismatch between strategic narratives and practical capacities.

How could you study Agenda 2030 as a strategic vision while testing evidence of implementation?

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A research framework for tracing how strategic ideas enter institutional practice.

Variation, selection and retention

Mechanism	Analytical focus	Possible evidence
Variation	Alternative interpretations and proposals	Debates, drafts and competing narratives
Selection	Why some priorities gain support	Decisions, coalitions and resource allocation
Retention	How priorities become durable	Rules, routines, infrastructure and repeated practice

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Reinforcement and the role of actors

- Procedures can privilege selected interpretations and make alternatives harder to advance.
- Organisations can recruit and retain actors whose orientations fit established priorities.
- Digital systems may embed categories through interfaces, indicators and decision procedures.
- Analysis should compare the stated rationale with the practices that reproduce it.

Which assumptions become routine when an organisation measures “successful innovation”?

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Crises and contested futures

- Crises can unsettle established explanations and create space for alternative strategic visions.
- Actors may disagree about the causes of a crisis and the appropriate response.
- A new narrative needs institutional support and practical resources to become consequential.
- A crisis can therefore enable change without determining its direction.

How could a crisis favour competing visions of digitalisation and sustainable development?

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SOFIA and Agenda 2030

TIA2030 connects these lenses in the study of technological innovation.

Analytical lens	Question for implementation
Institutions	Which rules and organisational capacities support or constrain action?
Social networks	Who cooperates, controls resources or remains excluded?
Cognitive frames	How do actors understand the problem and justify priorities?

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EU implementation of Agenda 2030

- The United Nations adopted the 2030 Agenda in 2015, with 17 Sustainable Development Goals.
- The EU addresses sustainable development through internal policies and external cooperation.
- Implementation involves EU institutions, Member States, authorities at different levels and non-state actors.

Where do responsibilities, resources and interpretations fail to align?

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Digitalisation and environmental sustainability

- The EU connects digital transformation with environmental sustainability priorities.
- Digital tools can help monitor energy use or support changes in transport and production.
- Devices, networks and data centres also require energy and material resources.
  - *Assess the whole intervention, including equipment life cycles, changes in demand and social access.*

When would a digital solution deliver a net environmental benefit, and for whom?

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Artificial intelligence and social change

- The EU approach to AI combines innovation with safety and fundamental rights.
  - *Examine how AI use may change professional judgement, learning and access to services.*
  - *Ask whose knowledge shapes the system and who can challenge its classifications or outputs.*
  - *Evaluate proposed sustainability benefits alongside social and environmental costs*.

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Comparing theoretical explanations

Perspective	Primary focus	Question for a common case
Bell	Knowledge and occupational change	What expertise and knowledge institutions matter?
Castells	Networks, flows and power	Who connects activities and controls participation?
Cultural political economy	Meaning and material organisation	Which vision becomes authoritative and durable?

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Ethics in digital society research

- *Consider who benefits, who carries risks and who has meaningful choices.*
- *Examine privacy, accessibility, discrimination and the distribution of responsibility.*
- *Use a research design that respects participants and the context of their data.*
- *Reflect on how the researcher's own categories shape interpretation.*

Which ethical questions arise before data collection and which remain during interpretation?

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Developing the scientific article

- *State a focused problem and its relevance to information society and the EU or Agenda 2030.*
- *Define the concepts and compare explanations that guide the analysis.*
- *Justify the case, material and method, including the limits of the evidence.*
- *Link findings to the research question and identify opportunities for further study*.

What could a critical reader check, challenge or reproduce in your argument?

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