Teaching the Next Generation
Management in the Digital Era

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Themes of the Digital Era

Examples of Tools, Techniques, and Topics that Change established Mechanisms of Work

- **Data-driven Decision Making**
  - Ubiquitous Information Literacy
  - Big Data Analytics and Visualization Techniques
  - Domain-specific Analytics Applications

- **Artificial Intelligence**
  - Working with Software Robots
  - Learning in the absence of "on-the-job" experiences
  - Impact of Machine Learning on Qualitative Decisions

- **New Organizational Forms**
  - Platform Businesses and Hyperscaling Enterprises
  - Gig Economy and New Labor Markets
  - Managing Digital Natives and Upskilling Non-Natives

- **Ethics and Cybersecurity**
  - Hyperpersonalization and Surveillance Capitalism
  - Corporate Responsibility for PII and Derivative Data
  - Fairness/Ethics of AI

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Digital + Covid = Disruption of Talent Pipelines

Lifelong learning and cross-training

- Only 29% of new hires have all the skills required for their current roles, let alone for future ones.

- Key positions in finance, IT, and sales that are filled today will require up to 10 new skills within 18 months

  2019 Gartner survey of 3,500 managers

- "People in lockdown have embraced online learning, and now we are seeing talent emerge in unlikely places. One example is a chef whose restaurant had to close, so she taught herself to program in [the computer language] Python."

  Cynthia Burkhardt
  Global Head of Talent Acquisition
  Philips

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Differences in Level

Undergraduate vs Graduate Business Education

Undergraduate

- Need for mid- to long-term knowledge and skills

- Digital natives, higher comfort-level with technology than faculty in some cases

- More time for systematic content sequences, but limited by certification requirements in certain fields

- Major/Minor as well as BS+MS opportunities

Graduate

- Need for employability and immediate applicability

- Heterogeneity in learner preparedness: Do we need a digital skills entrance exam?

- Shorter timeframe requires immediate impact, allows for modular design

- Cross-career moves: Cooks that code

Depth of Digital Offerings

Embedding of Digital Topics is happening at different levels

- New Degrees
  - Example: MS in Digital Forensics
- New Majors / Minors / Concentrations / Combinations
  - Example: BS in Quantitative Finance, Accounting & Analytics BS + MS dual-degree
- New Courses
  - Example: Digital Innovation & Transformation
- Curricular Redesign
  - Example: IT Strategy as core strategy course in MBA
- Redesign of Courses
  - Addition of Modules/Cases
- Non-Degree/Executive Education Offerings

- Undergraduate Education
  - Management & Digital Innovation (U London)
  - Digital Marketing (many)
- MBA
  - iMBA (Kellogg), Analytics MBA (Stevens), MBA + MS in Digital Tech (Boston U), Tech MBA (NYU)
- Specialty Masters
  - MS in Business Analytics (many)
- Executive Education
  - Master Digital Marketing (Kellogg)
- Dual-Degrees
  - BS in Accounting, MS in Digital Technology (Plattsburgh)

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Strategic vs Tactical Digital Topics

Current focus on tactical topics reveals a lack of strategic focus

- Strategy: Explanation of how Value Creation / Articulation / Exchange drives business
- Tactics: Practical application of digital tools and methods in specific areas/domains

- Most surveyed programs bring digital into the curriculum at the tactical level
  - Opportunities: Badges and Vendor Certificates as added value at low cost
  - Risk: Topic and technology churn
  - Risk: Helping faculty stay on top of changing tactical landscape

- Need to embed tactical content in larger strategic questions
  - Example: Changes in the Workforce: Managing Digital Nomads
  - Example: Content Marketing in the context of value articulation
  - Example: Hyperautomation in the context of value exchange

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Underrepresented: Ethics / Cybersecurity

Digital tools accelerate frequency and severity of ethical lapses

- Ethics mostly handled as lectures / cases in individual courses
    - Business Models built on data integration / surveillance
    - Valuation of data-/subscriber-based businesses
    - Benefits/Risks of hyper-personalization and content targeting
    - Organizational impact of managing with data (e.g., radical transparency)

- Cybersecurity as a specialty discipline within CS, but is missing business applications
    - Liability for third-party content
    - Reputational consequences of PII breaches
    - Managing human factors & information security awareness within organizations

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Disciplinary Insights

Integration is bottom-up

- Finance: Algorithms trump AI and Automation
- Accounting: CPA requirements create structural boundaries, BS+MS creates unique opportunities
- Marketing: Digital Marketing Tools, Marketing Analytics, Ethics
- Information Systems: Source of Digital Skills by nature, boundary questions
- Analytics: Goldrush, but: who owns it? OR/OM/Statistics vs. Business Applications

Digital Divide

The Future is already here, but it is not evenly distributed

- Assistant Professors bring new skills, but have tenure on their mind
- Software is expensive, Data may be, too. Open-Source Tools change often
- Digital Labels on Degrees & Courses as marketing plays, but where is the substance?
- Systematic revision of undergraduate offerings vs. opportunistic design of graduate offerings
- Covid has forced certain upskilling, but also laid bare deficiencies in digital literacy
- Regional Differences: Asia appears to lag behind Europe and North America, little data from Africa and South America
- Bigger question about changes in educational formats and processes (e.g., Stanford 2025)

Thank You

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