Supplementary Table S1 Mapping of reviewed articles to Joint Academic Coding System areas

Related JACS Principal Subject	Articles (123 total)
JACS area: computer science (35 articles)	
(I1) Computer science (I2) Information systems (I3) Software engineering (I4) Artificial intelligence (I5) Health informatics (I6) Games (I7) Computer generated visual & audio effects (I9) Others in computer sciences	1. Gavel Y. Bringing the national interlending system into the local document supply process – a Swedish case study. Interlend Doc Supply 2015;43:104–109 2. Extending IT services to business process automation: Howard County uses an IT management platform to create a services portal and streamline IT and business workflows. Government Technology 2018;31(2):46. Accessed February 9, 2021 at: https://www.servicenow.com/content/dam/servicenow-assets/public/en-us/doc-type/resource-center/case-study/cs-howard-county.pdf 3. Abubaker H, Salah K. Workflow automation for partially hosted cloud services. In: IEEE 2nd International Workshops on Foundations and Applications of Self* Systems (FAS*W), Tucson, AZ: IEEE; September 2017:149-154 4. Aguirre S, Rodriguez A. Automation of a business process using robotic process automation (RPA): a case study. In: Figueroa-García JC, López-Santana ER, Villa-Ramírez JL, Ferro-Escobar R, eds. Applied Computer Sciences in Engineering. Communications in Computer and Information Science. 742201765–71 5. Al Aani S, Bonny T, Hasan SW, Hilal N. Can machine language and artificial intelligence revolutionize process automation for water treatment and desalination? Desalination 2019;458:84–96 6. Al-Barakati A, White M, Patoli Z. The application of workflow management to digital heritage resources. Int J Inf Manage 2014;34(5):660–671 7. Chen J, Sun L, Guo C, Wei W, Xie Y. A data-driven framework of typical treatment process extraction and evaluation. J Biomed Inform 2018;83:178–195 8. Cid-de-la-Paz V, Jiménez-Ramírez A, Escalona MJ. An automatic and intelligent system for integrated healthcare processes management. In: Rojas I, Ortuño F, eds. Bioinformatics and Biomedical Engineering. IWBBIO.2017. 102092017;621–30 9. Cristani M, Bertolaso A, Scannapieco S, Tomazzoli C. Future paradigms of automated processing of business documents. Int J Inf Manage 2018;40:67–75 10. De Pourcq K, Gemmel P, Devis B, Van Ooteghem J, De Caluwé T, Trybou J. A three-step methodology for process-oriented performance: how to enhance automated data collection in healthcare. Inform Health Soc Care 2019;44(3):313–325 11. Deelman E, Peterka T, Altintas I, et al. The future of scientific workflows. Int J High Perform Comput Appl 2018;32(1):159–175 12. Du L, Jiang ZF. Analysis and design of library office automation system based on workflow. In: Jiang Z, Liu X, Han J, eds. Engineering Solutions for Manufacturing Processes IV, Pts 1 and 2. Adv Mat Res 2014;889–890:1301–1305. Accessed February 9, 2021 at: https://www.scientific.net/AMR.889-890.1301 13. Fleckenstein M. The automated workplace. Machine Design 2018;90(7):36–41 14. Fluss D. Smarter bots mean greater innovation, productivity, and value: Robotic process automation is allowing companies to re-imagine and re-invest in all aspects of their businesses. CRM Magazine 2018;22(10):38–39 15. Fluss D. Will robotic process automation replace human workers? Automation will bring changes that rival those of the Industrial Revolution. CRM Magazine 2019;23(4):12 16. Guimaraes CV, Grzeszczuk R, Bisset GS III, Donnelly LF. Comparison between manual auditing and a natural language process with machine learning algorithm to evaluate faculty use of standardized reports in radiology. J Am Coll Radiol 2018;15(3 Pt B):550–553 17. Harlan J. Workflow automation: a collective case study, ProQuest Information & Learning. Dissertation Abstracts International: Section B: The Sciences and Engineering, 2014;74(12-B)(E). Accessed February 9, 2021 at: https://eric.ed.gov/?id=ED560289 18. Holzmüller-Laue S, Göde B, Fleischer H, Thurow K. Improved compliance by BPM-driven workflow automation. J Lab Autom 2014;19(6):528–545 19. Kompella L. E-Governance systems as socio-technical transitions using multi-level perspective with case studies. Technol Forecast Soc Change 2017;123:80–94 20. Lapão LV. The future impact of healthcare services digitalization on health workforce: the increasing role of medical informatics. Stud Health Technol Inform 2016;228:675–679 21. Martinho R, Rijo R, Nunes A. Complexity analysis of a business process automation: Case study on a healthcare organization. Procedia Comput Sci 2015;64:1226–1231 22. Minor M, Bergmann R, Görg S. Case-based adaptation of workflows. Inf Syst 2014;40:142–152 23. Neubert S, Göde B, Gu X, Stoll N, Thurow K. Potential of laboratory execution systems (LESs) to simplify the application of business process management systems (BPMS) in laboratory automation. SLAS Technol 2017;22(2):206–216 24. O'Connor AM, Tsafnat G, Gilbert SB, Thayer KA, Wolfe MS. Moving toward the automation of the systematic review process: a summary of discussions at the second meeting of International Collaboration for the Automation of Systematic Reviews (ICASR). Syst Rev 2018;7(1):3

Supplementary Table S1 (*Continued*)

Related JACS Principal Subject	Articles (123 total)
	25. Pivovarov R, Elhadad N. Automated methods for the summarization of electronic health records. J Am Med Inform Assoc 2015;22(5):938–947 26. Rasmussen CH, Smith MK, Ito K, et al. PharmTeX: a LaTeX-based open-source platform for automated reporting workflow. AAPS J 2018;20(3):52 27. Reijers HA, Vanderfeesten I, van der Aalst WMP. The effectiveness of workflow management systems: a longitudinal study. Int J Inf Manage 2016;36(1):126–141 28. Sammer C, Miller S, Jones C, et al. Developing and evaluating an automated all-cause harm trigger system. Jt Comm J Qual Patient Saf 2017;43(4):155–165 29. Schmidt S, Goros M, Parsons HM, et al. Improving initiation and tracking of research projects at an academic health center: a case study. Eval Health Prof 2017;40(3):372–379 30. Todd J, Richards B, Vanstone BJ, Gepp A. Text mining and automation for processing of patient referrals. Appl Clin Inform 2018;9(1):232–237 31. Tudor J, Klochko C, Patel M, Siegal D. Order entry protocols are an amenable target for workflow automation. J Am Coll Radiol 2018;15(6):854–858 32. Vannetti F, Atzori T, Matteoli S, et al. Ergonomics and workflow evaluation of automatic doppler angle technology implemented in a diagnostic ultrasound system. In: Ahram T, Karwowski W, Schmorrow D, eds. 6th International conference on Applied Human Factors and Ergonomics. Procedia Manuf. 2015;3:120–127. Accessed February 9, 2021 at: https://www.sciencedirect.com/science/article/pii/S2351978915001171 33. Weinstock M. "Our goal is not to eliminate people; it's to make our workforce more effective": Q&A: Roberta Schwartz. In: Crain Communications Inc. 2019;49:36–36 34. Wu H. Teaching information security with workflow technology–a case study approach. J Inf Syst Educ 2014;25(3):201–210 35. Zagoudis J. Automated treatment planning system streamlines workflow. Imaging Technology News 2018;58(6):3
JACS area: subjects allied to medicine (21 articles)	
(B0) Broadly based programmes within subjects allied to medicine (B1) Anatomy, physiology & pathology (B2) Pharmacology, toxicology & pharmacy (B3) Complementary medicines, therapies & well-being (B4) Nutrition (B5) Ophthalmics (B6) Aural & oral sciences (B7) Nursing (B8) Medical technology (B9) Others in subjects allied to medicine	1. Grant Thornton. Helping organizations embrace robotic process automation. HFMA (Healthcare Financial Management Association) Available at: https://www.hfma.org/topics/hfm/2018/december/62480.htm. Published November 30, 2018. Accessed February 2, 2021 2. Alam S, Osama M, Iqbal F, Sawar I. Reducing pharmacy patient waiting time. Int J Health Care Qual Assur 2018;31(7):834–844 3. Barlow RD. RFID: What's the frequency, healthcare? Healthcare Purchasing News 2019;43(9):42–44 4. Burckhardt I, Horner S, Burckhardt F, Zimmermann S. Detection of MRSA in nasal swabs-marked reduction of time to report for negative reports by substituting classical manual workflow with total lab automation. Eur J Clin Microbiol Infect Dis 2018;37(9):1745–1751 5. Elkady T, Rees A, Khalifa M. Nurses acceptance of automated medication dispensing cabinets. Stud Health Technol Inform 2019;262:47–50 6. Frederick J. Pharmacies turn to automation as workloads, data needs rise. Drug Store News 2017;39(9):28–30 7. Gambone Hudson A, Curtis R. Before automating the blood bank, evaluate compatibility with existing systems. MLO Med Lab Obs 2017;49(3):42 8. Hernandez R. Boosting bioproduction workflows with automation technologies. Pharm Technol 2017;41(6):16–19 9. Holzmüller-Laue S, Göde B, Thurow K. Flexible End2End workflow automation of HIT-discovery research. J Lab Autom 2014;19(4):349–361 10. Katzman M, Kim J, Lesher MD, et al. Customizing an electronic medical record to automate the workflow and tracking of an antimicrobial stewardship program. Open Forum Infect Dis 2019;6(8):ofz352 11. Kuramoto H, Sugimoto N, Iwami Y, Kato C, Hori M, Iida M. Evaluation of a new automated processing system (TACASTM Pro) for liquid-based procedures. Acta Cytol 2015;59(2):207–212 12. Laughlin S. Thriving under pressure: Lab information systems can reduce errors and automate workflow. Health Manag Technol 2016;37(5):24 13. Löfgren A, Andersson N, Sellberg A, Nilsson B, Löfgren M, Wood S. Designing an autonomous integrated downstream sequence from a batch separation process–an industrial case study. Biotechnol J 2018;13(4):e1700691 14. Maia C, Botta C, Ruiz CP, et al. FlowCT: a semi-automated workflow for deconvolution of immunophenotypic data and objective reporting on large datasets. Clin Lymphoma Myeloma Leuk 2019;19(10):e94

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Supplementary Table S1 (*Continued*)

Related JACS Principal Subject	Articles (123 total)
	15. McEntire R, Szalkowski D, Butler J, et al. Application of an automated natural language processing (NLP) workflow to enable federated search of external biomedical content in drug discovery and development. Drug Discov Today 2016;21(5):826–835 16. Messinger BL, Rogers DN, Hawker CD. Automation and process re-engineering work together to achieve Six Sigma quality: a 27-year history of continuous improvement. Lab Med 2019;50(2):e23–e35 17. Riben M. Laboratory automation and middleware. Surg Pathol Clin 2015;8(2):175–186 18. Scheinfeld MH, Kaplun O, Simmons NA, Sterman J, Goldberg-Stein S. Implementing a software solution across multiple ultrasound vendors to auto-fill reports with measurement values. Curr Probl Diagn Radiol 2019;48(3):216–219 19. Spinks J, Jackson J, Kirkpatrick CM, Wheeler AJ. Disruptive innovation in community pharmacy - Impact of automation on the pharmacist workforce. Res Social Adm Pharm 2017;13(2):394–397 20. Stocker D, Finkenstaedt T, Kuehn B, et al. Performance of an automated versus a manual whole-body magnetic resonance imaging workflow. Invest Radiol 2018;53(8):463–471 21. Weir NM, Newham R, Bennie M. A literature review of human factors and ergonomics within the pharmacy dispensing process. Res Social Adm Pharm 2020;16(5):637–645
JACS area: engineering and technology (20 articles)	
(H0) Broadly based programmes within engineering & technology (H1) General engineering (H2) Civil engineering (H3) Mechanical engineering (H4) Aerospace engineering (H5) Naval architecture (H6) Electronic & electrical engineering (H7) Production & manufacturing engineering (H8) Chemical, process & energy engineering (H9) Others in engineering (J1) Minerals technology (J2) Metallurgy (J3) Ceramics & glass (J4) Polymers & textiles (J5) Materials technology not otherwise specified (J6) Maritime technology (J7) Biotechnology (J9) Others in technology	1. Benţa D, Rusu L, Manolescu M-J. Workflow automation in a risk management framework for pavement maintenance projects. Int J Comput Commun Control 2017;12(2):155–165 2. Borges LA, Tan KH. Incorporating human factors into the AAMT selection: a framework and process. Int J Prod Res 2017;55(5):1459–1470 3. Britan A, Cusin I, Hinard V, et al. Accelerating annotation of articles via automated approaches: evaluation of the neXtA5 curation-support tool by neXtProt. Database (Oxford) 2018; DOI:10.1093/database/bay129 4. Cutler TR. Production automation gets IEs off the shop floor: technology helps optimize scheduling and workforce in the engineer-to-order space. ISE: Industrial & Systems Engineering at Work 2017;49(8):47–50 5. Ford M. (I, Robot), NOT: as industrial engineering evolves into “digital engineering,” will the automated factory work for the workers? Printed Circuit Design & Fab. Circuits Assem 2018;35(1):24–26 6. Guerra L, Sousa SD, Nunes EP. Statistical process control automation in the final inspection process: an industrial case study. In: 2016 IEEE International conference on Industrial Engineering and Engineering Management (IEEM). IEEE; 2016;876–880. Accessed February 19, 2021 at: https://ieeexplore.ieee.org/document/7798002 7. Johnston C. Automating the workforce: changing tides in the water utility industry. Water World 2017;33(5):10–14 8. Kattepur A. Toward structured performance analysis of industry 4.0 workflow automation resources. In: Proceedings of the 2019 ACM. 2019;189–196. Accessed February 9, 2021 at: https://dl.acm.org/doi/10.1145/3297663.3309671 9. Mayer MP, Odenthal B, Faber M, Winkelholz C, Schlick CM. Cognitive engineering of automated assembly processes. Hum Factors Ergon Manuf 2014;24(3):348–368 10. Mirasol F. Automating the biomanufacturing process. Biopharm Int 2019;32(3):26–30 11. Nguyen D, Gadhamshetty V, Nitayavardhana S, Khanal SK. Automatic process control in anaerobic digestion technology: a critical review. Bioresour Technol 2015;193:513–522 12. Reisinger E, Genthner L, Kerssemakers J, et al. OTP: An automatized system for managing and processing NGS data. J Biotechnol 2017;261:53–62 13. Sala Benito JV, Paini A, Richarz A-N, et al. Automated workflows for modelling chemical fate, kinetics and toxicity. Toxicol In Vitro 2017;45(Pt 2):249–257 14. Seiger R, Assmann U, Huber S. A case study for workflow-based automation in the Internet of things. 2018 IEEE International conference on Software Architecture Companion (ICSA-C), Seattle, WA. 2018;11–18 15. Suica D. Plan to learn about automating processes. Production Machining. Available at: https://www.productionmachining.com/columns/plan-to-learn-about-automating-processes. Published July 20, 2018. Accessed July 8, 2020 16. McQuilken T. Automation is the future of print workflows. Editor & Publisher. 2014;147 (1):32–33 17. Tabbone G. On the road to automated production workflows in the back end of line. 34th European Mask and Lithography conference. UFW Behringer and J Finders. 2018;10775. Accessed February 9, 2021 at: https://ui.adsabs.harvard.edu/abs/2018SPIE10775E..0NT/abstract

Supplementary Table S1 (*Continued*)

Related JACS Principal Subject	Articles (123 total)
	18. Tacker DH, Topardo J, Mahaffey C, Perrotta PL. Workflow analysis comparing manual and automated specimen processing for mass spectrometry-based vitamin D testing. Lab Med 2014;45(4):361–367 19. Waszkowski R, Nowicki T, Worwa K. Corporate efficiency improvement with business process automation. MATEC Web conf. 2018;210:02012. Accessed February 9, 2021 at: https://www.mendeley.com/catalogue/de387ceb-ff03-38a7-94af-042ca5d46f42/ 20. Winkler D, Schönbauer M, Biffl S. Toward automated process and workflow management: a feasibility study on tool-supported and automated engineering process modeling approaches. In: Rabiser R, Torkar R, eds. 2014 40th EUROMICRO conference on Software Engineering and Advanced Applications. IEEE. 2014;102–110. Accessed February 9, 2021 at: https://ieeexplore.ieee.org/document/6928797/footnotes#footnotes
JACS area: medicine and dentistry (19 articles)	
(A0) Broadly based programmes within medicine & dentistry (A1) Preclinical medicine (A2) Preclinical dentistry (A3) Clinical medicine (A4) Clinical dentistry (A9) Others in medicine & dentistry	1. Workflow peaks and pratfalls. Health Manag Technol 2014;35(12):8–9 2. Chen AM, Kupelian PA, Wang P-C, Steinberg ML. Development of a radiation oncology-specific prospective data registry for research and quality improvement: a clinical workflow-based solution. JCO Clin Cancer Inform 2018;2(2):1–9 3. Covington EL, Chen X, Younge KC, et al. Improving treatment plan evaluation with automation. J Appl Clin Med Phys 2016;17(6):16–31 4. De Ramón Fernández A, Ruiz Fernández D, Sabuco García Y. Business process management for optimizing clinical processes: a systematic literature review. Health Informatics J 2020;26(2):1305–1320 5. Desai V, Flanders A, Zoga AC. Leveraging technology to improve radiology workflow. Semin Musculoskelet Radiol 2018;22(5):528–539 6. Dias KN, Welfer D, Cordeiro d'Ornellas M, Pereira Haygert CJ, Dotto GN. Use of flowchart for automation of clinical protocols in mHealth. Stud Health Technol Inform 2017;245:59–63 7. Fahy K. CAC takes coding into the future. J AHIMA 2019;90(9):28–29 8. Farahani N, Liu Z, Jutt D, Fine JL. Pathologists' computer-assisted diagnosis: a mock-up of a prototype information system to facilitate automation of pathology sign-out. Arch Pathol Lab Med 2017;141(10):1413–1420 9. Holter MTS, Johansen A, Brendryen H. How a fully automated eHealth program simulates three therapeutic processes: a case study. J Med Internet Res 2016;18(6):e176 10. Kalejta CD, Higgins S, Kershberg H, et al. Evaluation of an automated process for disclosure of negative noninvasive prenatal test results. J Genet Couns 2019;28(4):847–855 11. Keil M. Workflow optimization and process automation in dialysis wards by introducing a treatment monitoring system. Nephrol Dial Transplant 2015;30(Suppl 3):761 12. Laing GL, Bruce JL, Skinner DL, Allorto NL, Clarke DL, Aldous C. Development, implementation, and evaluation of a hybrid electronic medical record system specifically designed for a developing world surgical service. World J Surg 2014;38(6):1388–1397 13. Meier J, Boehm A, Kielhorn A, Dietz A, Bohn S, Neumuth T. Design and evaluation of a multimedia electronic patient record "oncoflow" with clinical workflow assistance for head and neck tumor therapy. Int J CARS 2014;9(6):949–965 14. Melnick ER, Holland WC, Ahmed OM, et al. An integrated web application for decision support and automation of EHR workflow: a case study of current challenges to standards-based messaging and scalability from the EMBED trial. JAMIA Open 2019;2(4):434–439 15. Nieten A. How to help your healthcare workers adopt electronic workflows. formstack.com. Accessed February 9, 2021 at: https://www.formstack.com/resources/blog-electronic-healthcare-workflows 16. Padoy N. Machine and deep learning for workflow recognition during surgery. Minim Invasive Ther Allied Technol 2019;28(2):82–90 17. Pianykh OS, Jaworsky C, Shore MT, Rosenthal DI. Improving radiology workflow with automated examination tracking and alerts. J Am Coll Radiol 2017;14(7):937–943 18. Shailam R, Botwin A, Stout M, Gee MS. Real-time electronic dashboard technology and its use to improve pediatric radiology workflow. Curr Probl Diagn Radiol 2018;47(1):3–5 19. Zhang Y, Padman R, Levin JE. Paving the COWpath: data-driven design of pediatric order sets. J Am Med Inform Assoc 2014;21(e2):e304–e311
JACS area: business and administrative studies (13 articles)	
(N0) Broadly based programmes within business & administrative studies	1. Making the case for DC workflow automation to drive process optimization. Modern Materials Handling 2017;72(4):34–35 2. Cut administrative spending with automation: stop leaving money on the table. Receivables Report for America's Health Care Financial Managers. 2019;34(5):3–4

(*Continued*)

Supplementary Table S1 (*Continued*)

Related JACS Principal Subject	Articles (123 total)
(N1) Business studies (N2) Management studies (N3) Finance (N4) Accounting (N5) Marketing (N6) Human resource management (N7) Office skills (N8) Hospitality, leisure, sport, tourism & transport (N9) Others in business & administrative studies	3. Abollado JR, Shehab E, Bamforth P. Challenges and benefits of digital workflow implementation in aerospace manufacturing engineering. Procedia CIRP 2017;60:80–85 4. Ahlen A, Akerberg J, Eriksson M, Isaksson AJ, Iwaki T, Johansson KH. Toward wireless control in industrial process automation: a case study at a paper mill. IEEE Contr Syst Mag 2019;39(5):36–5 5. Araújo AF, Varela MLR, Gomes MS, Barreto RCC, Trojanowska J. Development of an intelligent and automated system for lean industrial production, adding maximum productivity and efficiency in the production process. In: Hamrol A, Ciszak O, Legutko S, Jurczyk M, eds. Lecture Notes in Mechanical Engineering. Springer International Publishing; 2018:131–140 6. Aysolmaz B, Demirörs O. Deriving user requirements from business process models for automation: a case study. In: 2014 IEEE 1st International Workshop on the Interrelations between Requirements Engineering and Business Process Management (REBPM). IEEE. Accessed February 9, 2021 at: https://ieeexplore.ieee.org/document/6890732. 7. Ball M. Wonderful workflows. Credit Union Management 2015;38(10):36–38 8. Bien-Aime V. Leveraging workflow automation in the appraisal management process. Mortgage Banking. 2016;76(6):106–107 9. Bevilacqua M, Ciarapica FE, De Sanctis I, Mazzuto G, Paciarotti C. The automation of an assembly system: a business process re-engineering (BPR) perspective. In: Framinan JM, Gonzalez PP, Artiba A, eds. Industrial Engineering and Systems Management (IESM), 2015 International conference Proceedings. 2015;371–377. Accessed February 9, 2021 at: https://ieeexplore.ieee.org/document/7380185 10. Chan-Amaya A, Anaya-Pérez ME, Benítez-Baltazar VH. A methodology to determine the level of automation to improve the production process and reduce the ergonomics index. J Phys Conf Ser 2017;885:012013 11. Florea AMI, Diaconița V, Dorobăț I. Business process modeling for sales processes automation. In: Bilgin MH, Dan H, eds. Vol 1. Eurasian Studies in Business and Economics. Springer International Publishing; 2016:375–383 12. McClure D. The many faces of workflow. Account Today 2014;28(8):26–31 13. Romão M, Costa J, Costa CJ. Robotic process automation: a case study in the banking industry. In: 2019 14th Iberian conference on Information Systems and Technologies (CISTI). IEEE; 2019. Accessed February 9, 2021 at: https://ieeexplore.ieee.org/document/8760733
JACS area: biological sciences (7 articles)	
(C0) Broadly based programmes within biological sciences (C1) Biology (C2) Botany (C3) Zoology (C4) Genetics (C5) Microbiology (C6) Sport & exercise science (C7) Molecular biology, biophysics & biochemistry (C8) Psychology (C9) Others in biological sciences	1. Belin SD. The human side of lab automation. Here are some best practices to break down the “silos”. MLO Med Lab Obs 2017;49(6):38–40, 40 2. Sandia National Laboratory. Clay RL. Workflow automation today and tomorrow. 2018. SAND2018–3613C 3. Slovis BH, Nahass TA, Salmasian H, Kuperman G, Vawdrey DK. Asynchronous automated electronic laboratory result notifications: a systematic review. J Am Med Inform Assoc 2017;24(6):1173–1183 4. Spjuth O, Bongcam-Rudloff E, Hernández GC, et al. Experiences with workflows for automating data-intensive bioinformatics. Biol Direct 2015;10(1):43 5. Tuthill JM. Decision support to enhance automated laboratory testing by leveraging analytical capabilities. Clin Lab Med 2019;39(2):259–267 6. White R. Leveraging automation as a strategy to overcome today’s laboratory challenges. MLO Med Lab Obs 2019;51(3):24–25 7. Yu HE, Lanzoni H, Steffen T, et al. Improving laboratory processes with total laboratory automation. Lab Med 2019;50(1):96–102
JACS area: mass communications and documentation (3 articles)	
(P0) Broadly based programmes within mass communications & documentation (P1) Information services (P2) Publicity studies (P3) Media studies (P4) Publishing (P5) Journalism (P9) Others in mass	1. Gould EM. Workflow management tools for electronic resources management. Ser Rev 2018;44(1):71–74 2. Hoffman M. Automation in (mass) digitization QA-workflows. Archiving 2017; (1):78–82 3. Schleifer D. Handling complexity with workflow automation. TVB Europe: 2017;37–37

Supplementary Table S1 (*Continued*)

Related JACS Principal Subject	Articles (123 total)
communications & documentation	
JACS area: agriculture and related subjects (2 articles)	
(D0) Broadly based programmes within agriculture & related subjects (D3) Animal science (D4) Agriculture (D5) Forestry & arboriculture (D6) Food & beverage studies (D7) Agricultural sciences (D9) Others in veterinary sciences, agriculture & related subjects	1. Campos M. Automation and manufacturing innovations for the food industry: Recent case studies in the food industry highlight how new innovations can improve the automation, manufacturing, and packaging processes. Machine Design 2018;90(5):72–73 2. Rodenburg J. Robotic milking: technology, farm design, and effects on work flow. J Dairy Sci 2017;100(9):7729–7738
JACS area: architecture, building, and planning (1 article)	
(K0) Broadly based programmes within architecture, building & planning (K1) Architecture (K2) Building (K3) Landscape & garden design (K4) Planning (urban, rural & regional) (K9) Others in architecture, building & planning	1. Byers C. Five ways to automate government workflow. Am City County 2018;133(8):14
JACS area: education (1 article)	
(X0) Broadly based programmes within education (X1) Training teachers (X2) Research & study skills in education (X3) Academic studies in education (X9) Others in education	1. Frolova MA, Razumova TA. The use of process approach to base the need of automation of business processes in educational institutions. In: Kiselev BG, Panin OA, eds. Information Technologies in Education of the XXI Century. AIP conference Proceedings. 2017;1797. Accessed February 9, 2021 at: https://aip.scitation.org/doi/abs/10.1063/1.4972460
JACS area: social studies (1 article)	
(L0) Broadly based programmes within social studies (L1) Economics (L2) Politics (L3) Sociology (L4) Social policy (L5) Social work (L6) Anthropology (L7) Human & social geography (L8) Development studies (L9) Others in social studies	1. Corcoglioniti F, Giuliano C, Nechaev Y, Zanoli R. Pokedem: an automatic social media management application. RecSys '17: Proceedings of the Eleventh ACM conference on Recommender Systems. 2017;358–359. Accessed February 9, 2021 at: https://dl.acm.org/doi/abs/10.1145/3109859.3109980

Abbreviation: JACS, Joint Academic Coding System.

Note: The table outlines the JACS areas, associated JACS principal subjects, and the articles reviewed categorized into each JACS area. JACS areas and associated principle subject codes are from Higher Education Statistics Agency.[33]

