

Intellectual Foundations of Informatics

Welcome and Intro

Joe Janes and Scott Barker



Two instructors?





INFO 200 is a “survey course”
It introduces you to the core concepts
perspectives
methods
and debates
that make up the field of informatics

It also surveys career opportunities
clarifies how informatics differs from other technology areas of study
and provides a foundation for future courses in the field

It will orient you...





...and prepare you

Informatics Major and Minor

INFO 200

Intellectual Foundations

Broad overview

Creative and Critical Thinking Skills

INFO 201

Technical Foundations

Data Science and Computation

Data analysis and visualization skills

But first a few stories...

Navigation Apps Are Turning Quiet Neighborhoods Into Traffic Nightmares

By LISA W. FODERARO DEC. 24, 2017

The New York Times



Traffic on Irving Street. Melissa Soesman, who lives on the street, said she has had to plead with motorists to make room for her to pull out of her driveway. Nanci Makroulakis

AMIT KATWALA, WIRED UK

BUSINESS 08.15.2020 10:00 AM

An Algorithm Determined UK Students' Grades. Chaos Ensued

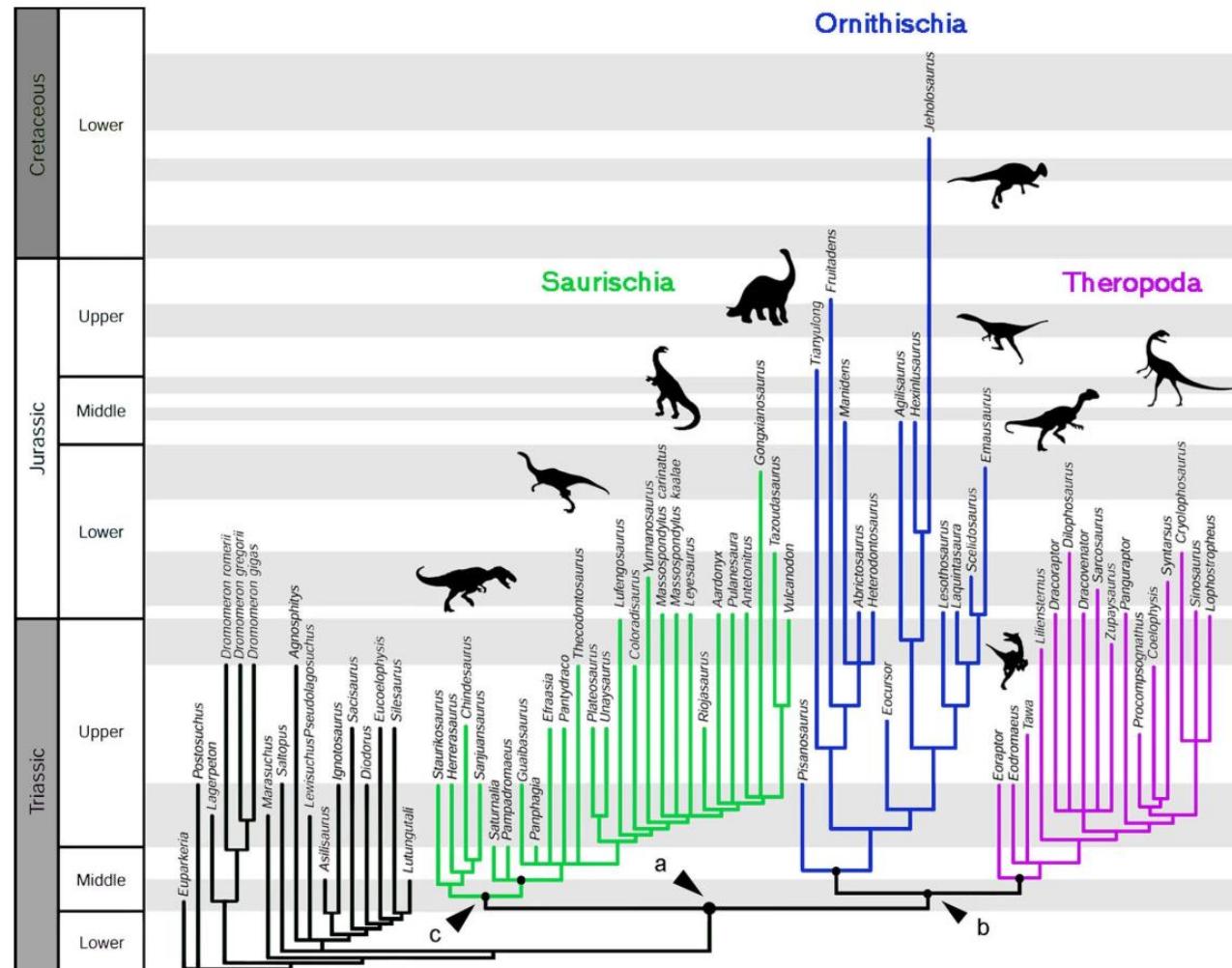
This year's A-Levels, the high-stakes exams taken in high school, were canceled due to the pandemic. The alternative only exacerbated existing inequities.



PHOTOGRAPHY: TOLGA AKMEN/AFP/GTET IMAGES

Shaking Up the Dinosaur Family Tree

The New York Times



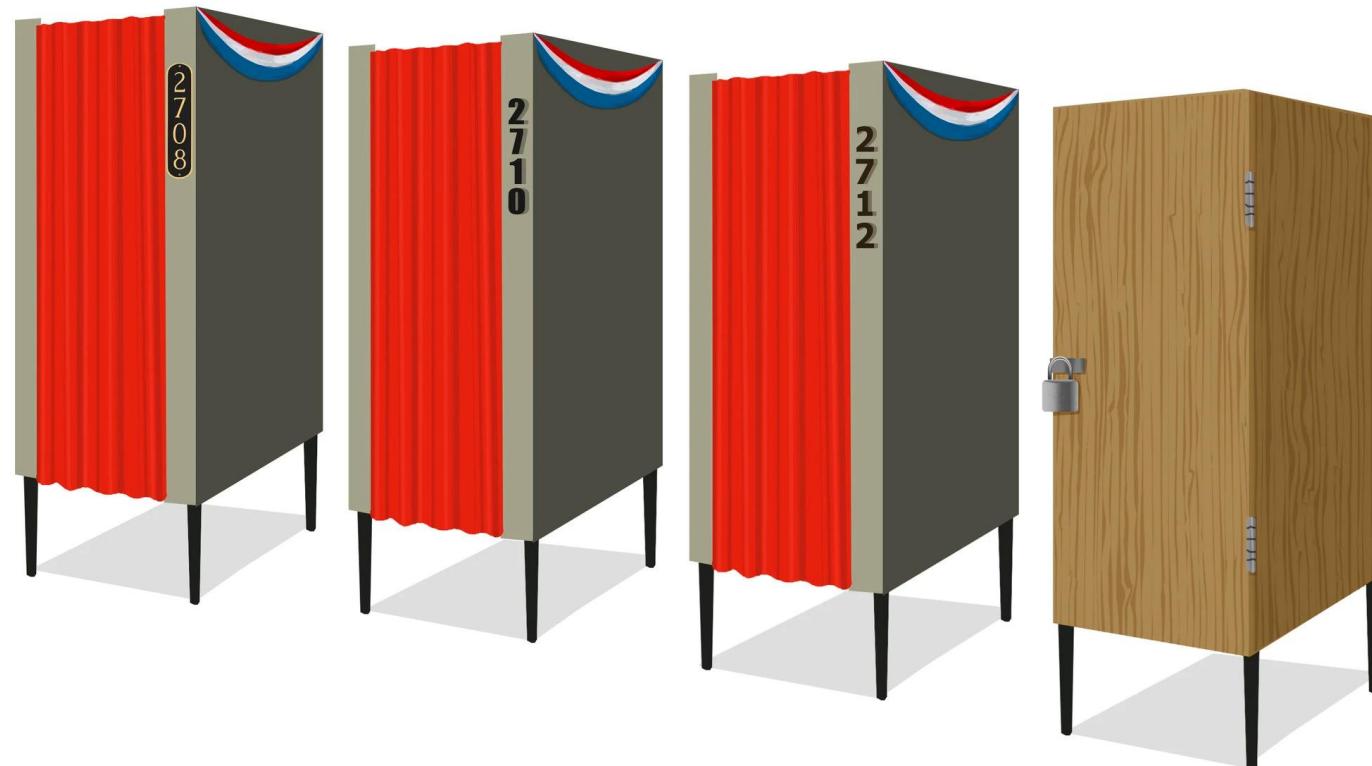
The proposed new family tree of dinosaurs. The group to the left is for close relatives but not true dinosaurs. The old tree grouped the theropods, purple, with the Saurischia, green, and viewed the Saurischia and the Ornithischia as the two major branches of the tree. The scale to the left shows the placement of the tree in geological time. A is the branchpoint that includes all the dinosaurs, B represents the joint ancestor of Ornithischia and the theropods, and C is the joint ancestor of Saurischia and an early group known as herrarasurs. Baron et al./Nature

Where the Streets Have No Names, the People Have No Vote

The Enlightenment gave us street addresses and ushered in democracy. The Age of Un-Enlightenment is using addresses to usher it out.

By Deirdre Mask

Ms. Mask is working on a book about street addresses.



Recently Deciphered 4,500-Year-Old Pillar Shows First Known Record of a Border Dispute

The marble stele, held in the British Museum's collections for 150 years, also includes the first known use of the term "no man's land"

Smithsonian.com



Canada's Project Naming: Identifying the unidentified

By Jessica Murphy
BBC News, Toronto

© 26 December 2016 | [US & Canada](#)

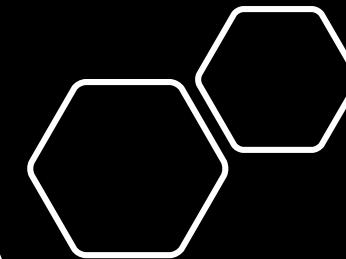
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ALAMY

Bella Lyall-Wilcox carrying her sister, Betty Lyall Brewster

A photo identifying effort by Canada's national archives that started in the country's remote north is helping name indigenous Canadians in archival images - and bringing the country a step closer to reconciliation by correcting historical wrongs.





Canada's first and only Indian Air Cadet Unit, "No. 610 Sqdn. RCAC" (Royal Canadian Army Cadets), Abbotsford, British Columbia [Back row: the surname of the boy on the far left is Sampson, and Jack Wycotte is second from the left. Front row: the surname of the boy third from the left is Wycotte].

Source: Library and Archives Canada MIKAN no. 3198218

A Master Work, the Ghent Altarpiece, Reawakens Stroke by Stroke

By MILAN SCHREUER DEC. 19, 2016



These interior wooden panels, featuring Adam and Eve (holding a citrus fruit), and the iconic “The Adoration of the Mystic Lamb,” have yet to be restored. For many years, the inside panels were only displayed on feast days.

Credit Hugo Maertens, Lukas-Art in Flanders/St. Bavo Cathedral

Meet your instructors...

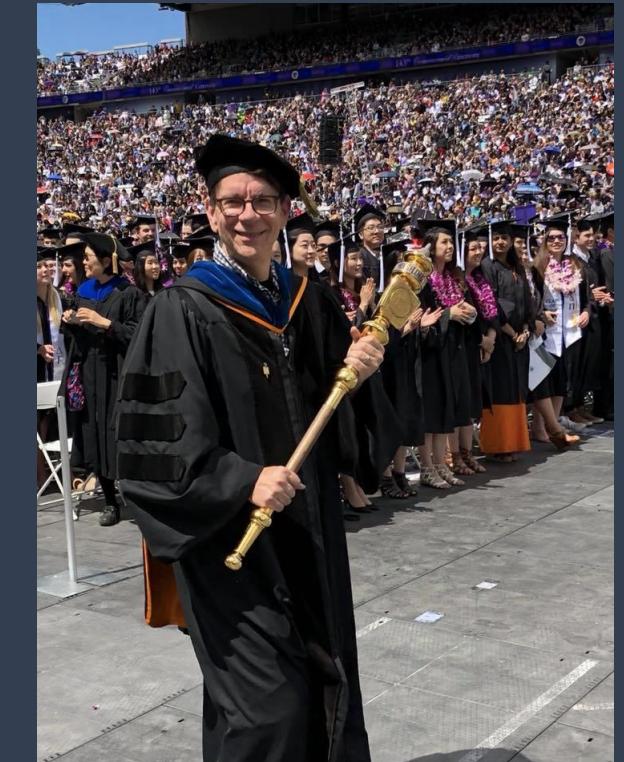
Joseph Janes

Associate Professor, 2019-20 Chair, UW Faculty Senate
Previously Chair of MLIS Program, Associate Dean for Academics

A.B., M.L.S. and Ph.D. in Information Transfer
Syracuse University

21 years at UW, iSchool – previously at University of Michigan
5th time teaching INFO 200
Scholarly interest: how documents and genres get the way they are, how they work (or don't), social and cultural impacts
Podcast – Documents that Changed the World

University Marshal – funnest job ever
Love sports, cooking, classic (old) movies
1st generation college student



Scott Barker

Associate Teaching Professor

former Chair of Informatics 2007-2017, Director of IT, iSchool

B.S. in Computer Science, M.S. in Information Resources Management

Syracuse University



Grew UW Informatics from 35 students to 210 per year

Increased applications from 70 to 800

Chaired admissions committee, revamped curriculum, INFO admissions committee chair this year

Created the original vision of this class, 10th time teaching it

Manage Information School (iSchool) IT with a staff of 6 employees

34 years experience working in IT, 21 years at the iSchool

Support the administrative, research, and instructional technology needs of the iSchool

Big college basketball and football fan (especially Syracuse!), love to travel

Many fabulous TA's!

They will introduce
themselves to you in a
separate video



Some of you have or are taking CSE 142.

Great! However programming is a necessary
but insufficient skill for long-term success

Tech skills change rapidly, often can be learned “on the job”

*You also need to learn how to design, analyze, think critically,
manage projects, consider organizational and social implications,
present your ideas, and work with people*

These “soft skills” last a lifetime

What is Informatics?

The science of **human-centered** information interaction:

- how we create and capture information
- how we store, organize, manage, and protect it
- how we find information when we need it
- how we manipulate information
- how we share and communicate information
- how we get rid of it
- how we make information work for people



Why this photo?





Informatics
sees the world
through
Information
colored
glasses

Mathematics: The science of numbers, quantity, and space

Physics: The science of matter and energy

Linguistics: The science of language

Economics: The science of economy and wealth

Politics: The science of government and statecraft

Informatics: The science of...?

“Elevator pitch” definition

*“Informatics is a high-tech, high-touch field
that uses information and technology
(computers, the Internet, and devices) to
make things better – at work, in society, and
to improve our individual lives”*

A divided world

The world desperately wants STEM majors, and warns you (yes you!) that if you don't pursue STEM, you won't get a good job

Meanwhile, it *stigmatizes* students who study humanities (as if technology has nothing to do with people)



This division is artificial, unjust, and untenable

Technology is *not enough*

Humanities is *not enough*

Algorithmic bias, misinformation, privacy, security, accessibility, ethics, automation are the issues defining our modern world

Neither technology or humanities can address them alone

The world needs *translators* who understand both

We need people who understand both
people and technology

Who can explain *people* to engineers

Who can explain *technology* to everyone else



Credit: [Zonaspace](#)

Two critical skills in tech translation

Analyzing technology: understanding and communicating its failings and flaws, so we can identify ways to improve it.

Designing technology: deciding *what* software should do (not just how), so that it improves lives, organizations, and society, rather than just having more functionality.

These are at the core of Informatics

Informatics Variations

- [Medical Informatics](#)
- [Biomedical Informatics](#)
- [Health Informatics](#)
- [Nursing Informatics](#)
- [Social Informatics](#)
- [Community Informatics](#)
- [Crisis Informatics](#)
- More...



All analyze and apply technology within a domain/field to solve problems and make lives better

End